

**FINAL**

# **PROGRAMMATIC ENVIRONMENTAL ASSESSMENT**

**OF THE PROPOSED  
SITE SELECTION, CONSTRUCTION, AND OPERATION  
OF THE**

# **EAST CENTRAL FLORIDA NATIONAL CEMETERY**

**SCOTTSMOOR, BREVARD COUNTY, FLORIDA**



**DEPARTMENT OF VETERANS AFFAIRS**

**810 VERMONT AVENUE, NW**

**WASHINGTON, DC 20005**

PREPARED BY:

**Weaver Boos Consultants**

**JULY 17, 2012**

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## PROGRAMMATIC ENVIRONMENTAL ASSESSMENT ABSTRACT

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LEAD AGENCY: Department of Veterans Affairs (VA)  
COOPERATING AGENCIES: None  
TITLE OF PROPOSED ACTION: Proposed East Central Florida National Cemetery  
AFFECTED JURISDICTION: Scottsmeer, Brevard County, Florida  
POINT OF CONTACT: Mr. Jeff Leikin, VA Project Manager, 810 Vermont Avenue NW,  
Washington, DC 20420; Comm. Tel.: (202) 632-5274  
PROPONENT: Department of Veterans Affairs (VA)

DOCUMENT DESIGNATION: Final Programmatic Environmental Assessment (PEA)

ABSTRACT: This Final Programmatic Environmental Assessment (PEA) analyzes the potential environmental effects of the Department of Veterans Affairs' (VA's) Proposed Action to select and acquire a site for a new National Cemetery in Brevard County, Florida.

This PEA evaluates two alternatives: (1) *Preferred Action Alternative* - Select and acquire the approximately 318-acre Site located east of Highway 1, north of Johns Road, east and west of Dixie Way, south of Huntington Avenue, and west of the Florida East Coast Railroad, southeast of Scottsmeer, Brevard County, Florida, for the future construction and operation of the proposed National Cemetery; and (2) the *No Action Alternative*.

This PEA evaluates possible effects to aesthetics; air quality; cultural resources; geology and soils; hydrology and water quality; wildlife and habitat, including threatened and endangered species; noise; land use; floodplains, wetlands, and coastal zone management; socioeconomics; community services; solid and hazardous materials; transportation and parking; utilities; and Environmental Justice (Executive Order [EO] 12898). The PEA concludes there would be no significant adverse impact, either individually or cumulatively, to the local environment or quality of life associated with implementing the Preferred Action Alternative, provided the avoidance and management measures, and best management practices identified in this PEA are implemented. Site-specific impacts will be further evaluated in a subsequent, tiered EA (Site-Specific EA) once a site has been selected, acquired, and the cemetery design process has been initiated. The avoidance and management measures identified in this PEA will be incorporated into that future process and analysis. Therefore, this PEA concludes that a Finding of No Significant Impact (FONSI) is appropriate, and that an Environmental Impact Statement (EIS) is not required.

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## EXECUTIVE SUMMARY

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This Programmatic Environmental Assessment (PEA) has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic effects associated with the Department of Veterans Affairs' (VA's) proposed selection and acquisition of a site for the future establishment of a new National Cemetery in east-central Florida. Preparation of this PEA is required in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 *et seq.*), the President's Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs Actions*). This PEA has also been prepared in accordance with the VA NEPA Interim Guidance for Projects dated 30 September 2010 (VA 2010).

Once a site is selected and acquired through this programmatic NEPA process, VA will prepare a subsequent, site-specific, "tiered" EA (Site-Specific EA or SEA) to more precisely analyze and evaluate the potential effects of the construction and operation of the proposed VA National Cemetery. At this latter point in time, additional design information would be available upon which to conduct this future environmental effects analysis. VA would incorporate the avoidance and management measures identified in this PEA into that future design process and tiered NEPA analysis to minimize potential environmental effects.

This approach is fully consistent with the NEPA and CEQ Regulations. In cases such as these, the CEQ Regulations establish and recommend a "tiered" approach to the environmental impact analysis process: "Agencies are encouraged to tier their environmental (documents)...to focus on the actual issues ripe for decision at each level of environmental review.... Tiering may also be appropriate for different stages of actions" (40 CFR Part 1502.20). These regulations specify that such potentialities (i.e., the ultimate construction and operation of the VA National Cemetery) should be introduced, but can be deferred to future analyses and documentation when they have "ripened," or when more complete information becomes available.

As such, this PEA assesses the potential effects of selecting and acquiring a site for the future development of the proposed VA National Cemetery (i.e., direct effects), and broadly assesses the effects of the future proposed construction and operation of the cemetery (i.e., indirect effects) under each alternative considered. Again, site-specific effects would be more thoroughly analyzed and evaluated in a subsequent, tiered EA, once this programmatic NEPA process is complete and an alternative (i.e., Site) has been selected and acquired by VA.

### PROPOSED ACTION

VA's Proposed Action is to select and acquire a site on which to ultimately establish a new VA National Cemetery, including the necessary infrastructure, on at least 200 contiguous acres within a 37-mile radius of the interchange of Interstate 95, and Routes A1A and 528 near Merritt Island/Titusville, Florida. The proposed cemetery would provide additional capacity, as well as improved access to Veterans and their families (i.e., reduced travel time to a National Cemetery), and would balance the currently unequal geographic distribution of VA National Cemeteries within the State of Florida.

Currently there are no design plans for this proposed National Cemetery. However, VA would follow the VA's National Cemetery Administration (NCA) *Facilities Design Guide* (VA 2008, or its successor) in developing the proposed cemetery design. VA would acquire the Site in 2012 and would initiate the formal cemetery design process approximately four to six months after acquiring the Site. The

design process will occur over a fourteen to sixteen month period. No construction would be initiated until that design process is complete. As part of that process, VA would complete a tiered, site-specific EA, in accordance with the above regulations, as part of the formal cemetery design process (VA 2011).

## PURPOSE AND NEED

VA has established three objectives that define outcomes for VA burial programs. One of these objectives is to ensure that burial needs of Veterans and eligible family members are met. NCA further defines this objective on the assumption that the burial needs of a Veteran are met if they have reasonable access to burial option, where reasonable access to a burial option is defined as "...a first interment option (whether for casketed remains or cremated remains, either in-ground or in columbaria) in a National or State Veterans Cemetery...available within 75 miles of the Veteran's place of residence." VA established a 75-mile service area standard because NCA data show that more than 80 percent of persons interred in National Cemeteries resided within 75 miles of the cemetery at the time of death. VA has also developed an unserved Veteran population threshold for eligibility to establish a new National Cemetery.

In the independent *Evaluation of the VA Burial Benefits Program* (August 2008), NCA reviewed where it has been and reflected on future burial strategy to continue meeting the needs of our Nation's Veterans. This evaluation also noted that there is a gap between the size of population centers served by a National Cemetery and state cemeteries. Hence, based upon that study, NCA established a new Veteran population threshold to increase access to a burial option where the unserved Veteran population is at least 80,000.

In accordance with the Servicemembers Civil Relief Act, also known as the Veteran's Benefit Act of 2010, Public Law 111-275, Sec. 503, Reports on Selection of New National Cemeteries (38 USC 2400), VA was directed to establish five new National Cemeteries, including a cemetery in east-central Florida.

The purpose of the Proposed Action is to select and acquire a suitable site for the proposed future construction and operation of a National Cemetery within a 37-mile radius of the interchange of Interstate 95, and Routes A1A and 528 near Merritt Island/Titusville, Florida. VA identified Brevard, Orange, and Osceola Counties in the region as preferred locations. This new National Cemetery must be of sufficient size and capacity to serve the projected needs of VA in this region for over 100 years.

The Proposed Action will provide burial facilities for eligible Veterans in east-central Florida with a Veteran population currently not served by an open National Cemetery. The NCA estimated an unserved Veteran population of over 163,000 living within the east-central Florida area in 2010, included in the 75-mile radius for this proposed National Cemetery.

A new National Cemetery is needed to better serve the needs of Veterans and their families in east-central Florida. The new cemetery would provide additional capacity, as well as improved access to Veterans and their families (i.e., reduced travel time to a National Cemetery), and would balance the currently unequal geographic distribution of VA National Cemeteries within the State of Florida. There are currently seven National Cemeteries located in Florida; a new cemetery in east-central Florida would help equalize the distribution of National Cemeteries within Florida. In addition, the new National Cemetery is needed for VA to comply with the service members Civil Relief Act.

## ALTERNATIVES

After identifying the need for a new National Cemetery in east-central Florida, VA published a solicitation for an appropriate new site. In accordance with VA's requirements, the site should include at least 200 contiguous acres and be located within a 37-mile radius of the interchange of Interstate 95, and Routes A1A and 528 near Merritt Island/Titusville, Florida. In order to be

considered as a reasonable site, VA also required that the site be easily accessible via existing major roadways.

Numerous responses to this solicitation (i.e., offering of sites) were received by VA. VA then created a Site Selection Board (SSB) to further evaluate each site. The SSB visited each site and ranked each site based on more specific selection criteria. Through this screening process, described in Section 2.3.1 of this PEA, VA determined that only one of the proffered sites, an approximately 318-acre Site located southeast of Scottsmoor in Brevard County, best met the selection criteria and was reasonable.

This PEA examines two alternatives in-depth, the Preferred Action Alternative and the No Action Alternative, defined as follows:

- **Preferred Action Alternative:** Select and acquire an approximately 318-acre Site southeast of Scottsmoor in Brevard County, Florida for the future construction and operation of the proposed National Cemetery. This Site is located east of Highway 1, north of Johns Road, east and west of Dixie Way, south of Huntington Avenue, and west of the Florida East Coast Railroad, and includes approximately 318 acres of unimproved agricultural and undeveloped land. Under this alternative, VA would acquire the Site and the future cemetery would be owned, developed, and operated by VA.
- **No Action Alternative:** Do not select and acquire a new Site and continue with operations as currently conducted. The seven existing National Cemeteries in Florida would continue to service VA, but would leave Veterans and their families in east-central Florida underserved. The Preferred Action Alternative Site likely would be developed for other uses by its current owner, in accordance with local zoning regulations.

The Preferred Action Alternative effectively provides the options that most closely meet the requirements of VA. The No Action Alternative would not enable VA to provide adequate, long-term cemetery facilities in east-central Florida nor comply with the requirements of the service members Civil Relief Act. However, the No Action Alternative is assessed in this PEA to provide a comparative baseline analysis, as required under the CEQ Regulations.

## AFFECTED ENVIRONMENT

The approximately 318-acre Preferred Action Alternative Site is located east of Highway 1, north of Johns Road, east and west of Dixie Way, south of Huntington Avenue, and west of the Florida East Coast Railroad, southeast of Scottsmoor in Brevard County, Florida (see [Figures 2, 3, and 4](#)).

The Preferred Action Alternative Site is currently owned by First Equity Development Group, Inc. The Site is comprised of agricultural fields, pastures, and undeveloped wooded land. No buildings are located on the Site. The adjacent area located to the north is undeveloped wooded land, unimproved farmland, scattered commercial properties, and a residential neighborhood. The adjacent area located to the east is currently occupied by a small private airfield (Tradewinds Aerodrome Airport) and Florida East Coast Railroad tracks, beyond which is the Indian River. The adjacent area located to the south is undeveloped land, unimproved farmland, and scattered residential and commercial properties. The adjacent area located to the west is undeveloped land and residential properties.

## ENVIRONMENTAL CONSEQUENCES

Both considered alternatives are evaluated in this PEA to determine their potential direct, indirect, and cumulative effect(s) on the physical, environmental, cultural, and socioeconomic aspects of the affected Site and its region of influence (ROI). Technical areas evaluated include:

- *Aesthetics*
- *Air Quality*
- *Cultural Resources*
- *Geology and Soils*
- *Hydrology and Water Quality*
- *Wildlife and Habitat*
- *Noise*
- *Land Use*
- *Floodplains, Wetlands, and Coastal Zone Management*
- *Socioeconomics*
- *Community Services*
- *Solid and Hazardous Materials*
- *Transportation and Parking*
- *Utilities*
- *Environmental Justice*
- *Cumulative Impacts*
- *Potential for Generating Substantial Controversy*

The Preferred Action Alternative would result in the impacts identified throughout Section 3 of this PEA. These include potential less-than-significant adverse impacts to aesthetics, air quality, cultural resources, geology and soils, hydrology and water quality, noise, coastal zones, solid and hazardous materials, transportation and parking, and utilities. All of these impacts are further reduced through careful implementation of the general Best Management Practices (BMPs), management measures, and compliance with regulatory requirements as identified throughout Section 3; BMPs are summarized in Section 3.17.

The Preferred Action Alternative could result in adverse impacts to wetlands and Waters of the US, protected wildlife and habitat, and floodplains. However, the VA anticipates that through environmentally sensitive site design and following good engineering practices, as well as consultation with pertinent Federal, State, and local regulatory agencies, these potential impacts would be avoided or managed to less-than-significant levels. Wetlands/Waters of the US and protected vegetation and wildlife would be avoided to the extent possible. These issues would be specifically analyzed, addressed, and mitigated within a subsequent, site-specific, tiered EA. The VA will prepare this tiered EA pursuant to 40 CFR Part 1502.20.

The three resources requiring avoidance measures during the site-specific design process identified in this PEA include:

***Wetlands and Waters of the US.*** Avoid onsite surface water resources to the extent possible during the site design process. Consult with, and obtain the necessary permit(s) from, the USACE under Section 404 of the Clean Water Act and applicable State agencies (FDEP and SJRWMD) to minimize adverse effects to jurisdictional surface water resources prior to construction. VA anticipates that final cemetery design will maintain a buffer of undisturbed land around the majority of identified surface water resources. However, in those cases where impacts to wetlands and Water of the US cannot be avoided (e.g., at stream crossings), VA will obtain and comply with all necessary permits from State (FDEP and SJRWMD) and Federal (USACE) agencies.

***Wildlife and Habitat.*** Avoid onsite protected vegetation and wildlife resources (Gopher Tortoise) to the extent possible during the site design process. Consult with the USFWS, FFWCC, FNAI, and Brevard County to minimize adverse effects to protected vegetation and wildlife resources prior to construction. VA anticipates that final cemetery design will maintain a buffer of undisturbed land around the majority of identified protected vegetation and wildlife resources. However, in those cases where impacts to protected vegetation and wildlife resources cannot be avoided, VA will consult and comply with Federal (USFWS), State (FFWCC and FNAI), and local (Brevard County) agencies.

***Floodplains.*** Avoid construction or the placement of fill within the 100-year on-site floodplain. VA anticipates that the final cemetery design will maintain a buffer of undisturbed land around the

identified floodplains. However, if impacts to the floodplains cannot be avoided, VA will create compensatory flood storage so as not to affect flood elevations onsite or off-site.

Under the No Action Alternative, the Proposed Action would not be implemented and more than 163,000 Veterans in east-central Florida will continue to reside greater than 75 miles from the nearest National Cemetery. No positive impacts attributable to the Preferred Action Alternative would occur, and a significant adverse effect to the socioeconomic environment would occur. Specifically, VA's ability to provide essential cemetery facilities to the region's Veterans would be compromised, resulting in a significant adverse socioeconomic impact. In addition, VA would not comply with the service members Civil Relief Act.

The PEA also examines the potential cumulative effects of implementing each of the considered alternatives. This analysis finds that implementation of the Preferred Action Alternative would not result in significant cumulative impacts to onsite or regional natural or cultural resources, and would maintain or enhance the socioeconomic environment of the area through long-term provision of required cemetery facilities in east-central Florida. The No Action Alternative would not produce these potential positive socioeconomic gains.

### **AGENCY AND PUBLIC INVOLVEMENT**

VA consulted with the following agencies during the preparation of this PEA: the US Fish and Wildlife Service (USFWS) Southeast Region; US Environmental Protection Agency (USEPA) Region IV; US Army Corps of Engineers (USACE) Jacksonville District; Florida Wildlife Commission (FWC); Florida Fish and Wildlife Conservation Commission (FFWCC); Florida Department of Environmental Protection (FDEP) (Office of the Ombudsman and Public Service and Coastal Management Program); Florida Department of Transportation (FDOT); Florida Natural Areas Inventory (FNAI); St. Johns River Water Management District (SJRWMD); Florida Division of Historical Resources (State Historic Preservation Office, or SHPO); Brevard County Fire Rescue (BCFR); Brevard County Planning and Development Department (BCPDD); Brevard County Natural Resources Department (BCNRD); Brevard County Property Appraiser (BCPA); Brevard County Utilities (BCU); Brevard County Public Works Department (BCPA); Brevard County Health Department (BCHD); Brevard County Parks and Recreation Department (BCPR); and the Brevard County Economic Development Department (BCED).

VA received responses from the following agencies regarding the Proposed Action (see Appendix A). The following summarizes that input, which VA used to focus this PEA's analysis:

**USFWS** stated that the Site may include habitat for a number of threatened or endangered species. USFWS recommends that a wildlife survey be conducted on the Site.

**FFWCC** stated a number of listed species have the potential to occur on or near the Site, including the following: Gopher tortoise, Florida pine snake, American alligator, Florida scrub-jay, Sherman's fox squirrel, and Florida black bear. FFWCC recommend that a species-specific wildlife survey be conducted on the Site. Furthermore, FFWCC recommends the applicant coordinate with the USFWS regarding those federally listed species that may occur on Site.

**FDOT** responded with a variety of information regarding the local area, but had no other comment.

**FNAI** states that according to their data federally listed species are present on or very near the Site. FNAI also indicate that there are potential scrub-jay populations on or very near the Site. FNAI's report also stated that portions of the Site appear to intersect the Merritt Island National Wildlife Refuge which is managed by the USFWS. The Site also appears to intersect the Indian River Lagoon Blueway Florida Forever BOT Project, which is part of the State of Florida's Conservation and Recreation Lands land acquisition program. The FNAI goes on to recommend that professionals familiar with Florida's flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

**SJRWMD** states that an Environmental Resource Permit, to be issued by SJRWMD, will be required for any development.

**SHPO** (Florida) states that no known cultural resources were identified at the Site. In addition, SHPO provided an Archeological Assessment of Six Selected Areas in Brevard County, Florida, which indicated that the Site is located in an area of low probability for archeological sites due to the lack of well-drained lands on which to establish a settlement. However, SHPO stated that the information provided does not constitute a project review. SHPO further stated that Federal, State, and local laws require a formal environmental review for most projects, and that such a review should be completed. Based on that comment, "A Cultural Resources Assessment of the Proposed 318-Acre Scottsmoor VA Cemetery Site", dated April 2012, was completed for the Site.

**BCPDD** stated that no active violations, fines, costs, or liens were identified for the Site.

**BCNRD** stated that a listed plant species (*Diceranda thinicola*) has been sighted approximately two and one-half miles south of the Site. They also stated that there are two fuel stations within one mile of the Site, both with active underground storage tanks in service.

**BCPW** noted that several water quality projects were completed in the area in the late 1990's.

Received agency information and comments have been fully incorporated and addressed in this PEA. Copies of relevant correspondence can be found in Appendix A.

For Federal proposed actions, Federal agencies are required to consult with federally recognized Native American Tribes. The Seminole Tribe of Florida responded to VA and requested that a Cultural Resources Assessment be conducted on the Site.

VA, as the Federal proponent of this Proposed Action, did publish and distribute this PEA, as a Draft, for a 30-day public comment period as announced by a Notice of Availability (NOA) published in a local newspaper of general circulation (*Florida Today*). Review copies were also be made available for public review at community libraries in the region. No comments were received. As such, VA will issue a Finding of No Significant Impact (FONSI).

## CONCLUSIONS

The Preferred Action Alternative would result in less-than-significant adverse impacts to aesthetics, air quality, cultural resources, geology and soils, hydrology and water quality, noise, coastal zones, solid and hazardous materials, transportation and parking, and utilities. All of these potential impacts would be further reduced through careful implementation of the general BMPs, management measures, and compliance with regulatory requirements.

The Preferred Action Alternative could result in adverse impacts to wetlands and Waters of the US, protected wildlife and habitat, and floodplains at the Site. However, VA anticipates that through environmentally sensitive site design and following good engineering practices, as well as consultation with pertinent Federal, State, and local regulatory agencies, these potential significant impacts would be avoided or managed to less-than-significant levels. Wetlands and Waters of the US, protected wildlife and habitat, and floodplains would be avoided to the extent possible. These issues would be specifically analyzed, addressed, and mitigated within a subsequent, site-specific, tiered EA. The VA will prepare this tiered EA pursuant to 40 CFR Part 1502.20.

The analysis performed in this PEA concludes there would be no significant adverse impact, either individually or cumulatively, to the local environment or quality of life associated with implementation of the Preferred Action Alternative, provided the management and avoidance measures described in this PEA are implemented. This PEA's analysis determines, therefore, that an Environmental Impact Statement (EIS) is unnecessary for the Preferred Action Alternative, and that a FONSI is appropriate.



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## SECTION 1: INTRODUCTION

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### 1.1 Introduction

This Section provides the reader with necessary introductory and background information concerning the Proposed Action for proper analytical context; identifies the purpose of and need for the Proposed Action; describes the Federal decision to be made concerning the Proposed Action; and identifies relevant environmental documents. Section 4 provides a summary of public and agency involvement (and key issues and concerns identified). Section 11 identifies Federal, State, and local regulations applicable to the Proposed Action.

This Programmatic Environmental Assessment (PEA) has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic effects associated with the Department of Veterans Affairs' (VA's), a Federal agency, Proposed Action. VA's Proposed Action is the selection and acquisition of a site suitable for the future establishment of a new VA National Cemetery within a 37-mile radius of the interchange of Interstate 95, and Routes A1A and 528 near Merritt Island/Titusville, Florida.

Preparation of this PEA is required in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 *et seq.*), the President's Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs Actions*). This PEA also has been prepared in accordance with the VA's *Environmental Compliance Manual* (VA 1998), as well as the VA's *NEPA Interim Guidance for Projects* (VA 2010).

Once a site is selected and acquired through this programmatic NEPA process, VA will prepare a subsequent, site-specific, "tiered" EA (Site-Specific EA or SEA) to more precisely analyze and evaluate the potential effects of the construction and operation of the proposed VA National Cemetery. At this latter point in time, additional design information would be available upon which to conduct this future environmental effects analysis. VA would incorporate the avoidance and management measures identified in this PEA into that future design process and tiered NEPA analysis to minimize potential environmental effects.

This approach is fully consistent with the NEPA and CEQ Regulations. In cases such as these, the CEQ Regulations establish and recommend a "tiered" approach to the environmental impact analysis process: "Agencies are encouraged to tier their environmental (documents)...to focus on the actual issues ripe for decision at each level of environmental review....Tiering may also be appropriate for different stages of actions" (40 CFR Part 1502.20). These regulations specify that such potentialities (i.e., the ultimate construction and operation of the VA National Cemetery) should be introduced, but can be deferred to future analyses and documentation when they have "ripened," or when more complete information becomes available.

As such, this PEA assesses the potential effects of selecting and acquiring a site for the future development of the proposed VA National Cemetery (i.e., direct effects), and broadly assesses the effects of the future proposed construction and operation of the cemetery (i.e., indirect effects) under each alternative considered. Again, site-specific effects would be analyzed and evaluated in a subsequent, tiered EA, once this NEPA process is complete and an alternative (i.e., Site) has been selected and acquired by VA.

## 1.2 Background

VA is proposing to select and acquire a site on which to ultimately establish a new VA National Cemetery, including the necessary infrastructure, on at least 200 contiguous acres within a 37-mile radius of the interchange of Interstate 95, and Routes A1A and 528 near Merritt Island/Titusville, Florida. The proposed cemetery would provide additional capacity, as well as improved access to Veterans and their families (i.e., reduced travel time to a National Cemetery), and would balance the currently unequal geographic distribution of VA National Cemeteries within the State of Florida (see [Figure 1](#)).

Currently there are no design plans for this proposed National Cemetery. However, VA would follow the VA's National Cemetery Administration (NCA) *Facilities Design Guide* (VA 2008, or its successor) in developing the proposed cemetery design. VA would acquire the Site in 2012 and would initiate the formal cemetery design process approximately four to six months after acquiring the Site. The design process will occur over a fourteen to sixteen month period. No construction would be initiated until that design process is complete. As part of that process, VA would complete a tiered, site-specific EA, in accordance with the above regulations, as part of the formal cemetery design process (VA 2011).

## 1.3 Purpose and Need

VA has established three objectives that define outcomes for VA burial programs. One of these objectives is to ensure that burial needs of Veterans and eligible family members are met. NCA further defines this objective on the assumption that the burial needs of a Veteran are met if they have reasonable access to burial option where reasonable access to a burial option is defined as "...a first interment option (whether for casketed remains or cremated remains, either in-ground or in columbaria) in a National or State Veterans Cemetery...available within 75 miles of the veteran's place of residence." VA established a 75-mile service area standard because NCA data show that more than 80 percent of persons interred in National Cemeteries resided within 75 miles of the cemetery at the time of death. VA has also developed an unserved Veteran population threshold for eligibility to establish a new National Cemetery.

In the independent *Evaluation of the VA Burial Benefits Program* (August 2008), NCA reviewed where it has been and reflected on future burial strategy to continue meeting the needs of our Nation's Veterans. This evaluation also noted that there is a gap between the size of population centers served by a National Cemetery and state cemeteries. Hence, based upon that study, NCA established a new Veteran population threshold to increase access to a burial option where the unserved Veteran population is at least 80,000.

In accordance with the Servicemembers Civil Relief Act, also known as the Veteran's Benefit Act of 2010, Public Law 111-275, Sec. 503, Reports on Selection of New National Cemeteries (38 USC 2400), VA was directed to establish five new National Cemeteries, including a cemetery in east-central Florida.

The purpose of the Proposed Action is to select and acquire a suitable site for the proposed future construction and operation of a National Cemetery within a 37-mile radius of the interchange of Interstate 95, and Routes A1A and 528 near Merritt Island/Titusville, Florida. VA identified Brevard, Orange, and Osceola Counties in the region as preferred locations. This new National Cemetery must be of sufficient size and capacity to serve the projected needs of VA in this region for 100 years.

The Proposed Action will provide burial facilities for eligible Veterans in east-central Florida with a Veteran population currently not served by an open National Cemetery. The NCA estimated an unserved Veteran population of over 163,000 living within the east-central Florida area in 2010, included in the 75-mile radius for this proposed National Cemetery.

A new National Cemetery is needed to better serve the needs of Veterans and their families in east-central Florida. The new cemetery would provide additional capacity, as well as improved access to Veterans and their families (i.e., reduced travel time to a National Cemetery), and would balance the currently unequal geographic distribution of VA National Cemeteries within the State of Florida. There are currently seven National Cemeteries located in Florida; a new cemetery in the east-central area would equalize the distribution of National Cemeteries within Florida (see Figure 1). In addition, the new National Cemetery is needed for VA to comply with the service members Civil Relief Act.

After identifying the need for a new National Cemetery in east-central Florida, VA published a solicitation for an appropriate new site. In accordance with VA's requirements, the site should include at least 200 contiguous acres and be located within a 37-mile radius of the interchange of Interstate 95, and Routes A1A and 528 near Merritt Island/Titusville, Florida. In order to be considered a reasonable site, VA also required the site to be readily accessible via existing major roadways.

VA received numerous responses (i.e., offering of sites) to this solicitation. A VA Site Selection Board (SSB), composed of VA professionals from various disciplines, visited each site. Each member of the SSB evaluated and scored each site based on specific site selection criteria. Site ranking was determined by the aggregate scores of each individual SSB member for each site. Through this process, described in Section 2.3.1, VA identified one reasonable site: an approximately 318-acre site located east of Highway 1, north of Johns Road, east and west of Dixie Way, south of Huntington Avenue, and west of the Florida East Coast Railroad, southeast of Scottsmeer in Brevard County, Florida. This Site is identified as the Preferred Action Alternative Site in this PEA (see Figures 2, 3, and 4).

#### **1.4 Decision-Making**

This PEA has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic effects associated with VA's proposed selection and acquisition of a site for the future establishment of a new National Cemetery in east-central Florida.

VA, as a Federal agency, is required to incorporate environmental considerations into their decision-making process for the actions they propose to undertake. This is done in accordance with the regulations identified in Section 1.1.

Ultimately, VA will decide, in part based on the analysis presented in this PEA and after having taken potential physical, environmental, cultural, and socioeconomic effects into account, whether VA should implement the Proposed Action at the Preferred Action Alternative Site and, as appropriate, carry out management, avoidance, and mitigation measures to reduce effects to the environment. VA will ultimately decide if this action is funded and implemented.

#### **1.5 Related Environmental Documents**

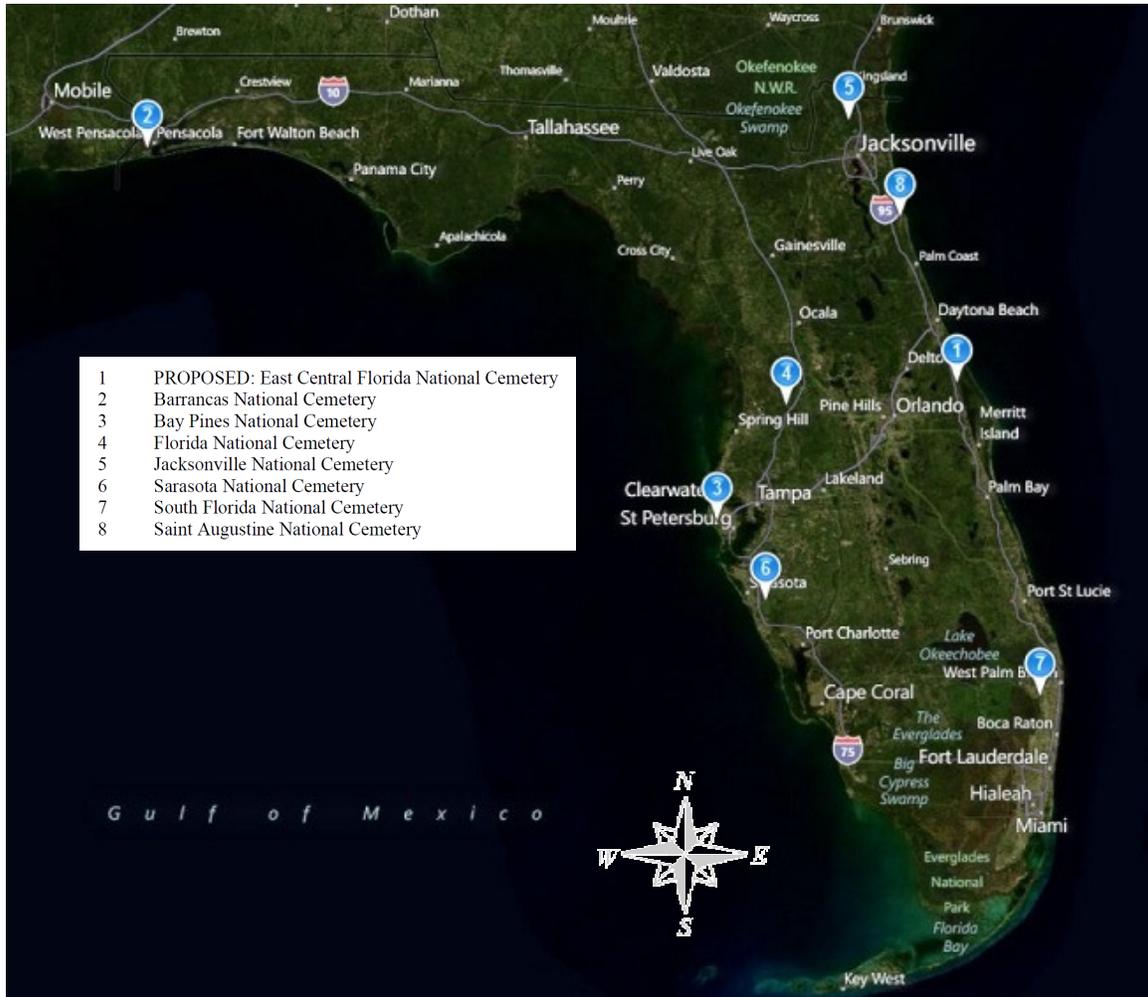
Additional information concerning the alternative sites analyzed within this PEA included:

Department of Veterans Affairs (VA) Seeking Expressions of Interest to Acquire a Site for Construction of National Cemetery Solicitation Number: VA 101-10-RI-0016, published July 16, 2010, through August 6, 2010, and again published October 7, 2010, through October 27, 2010.

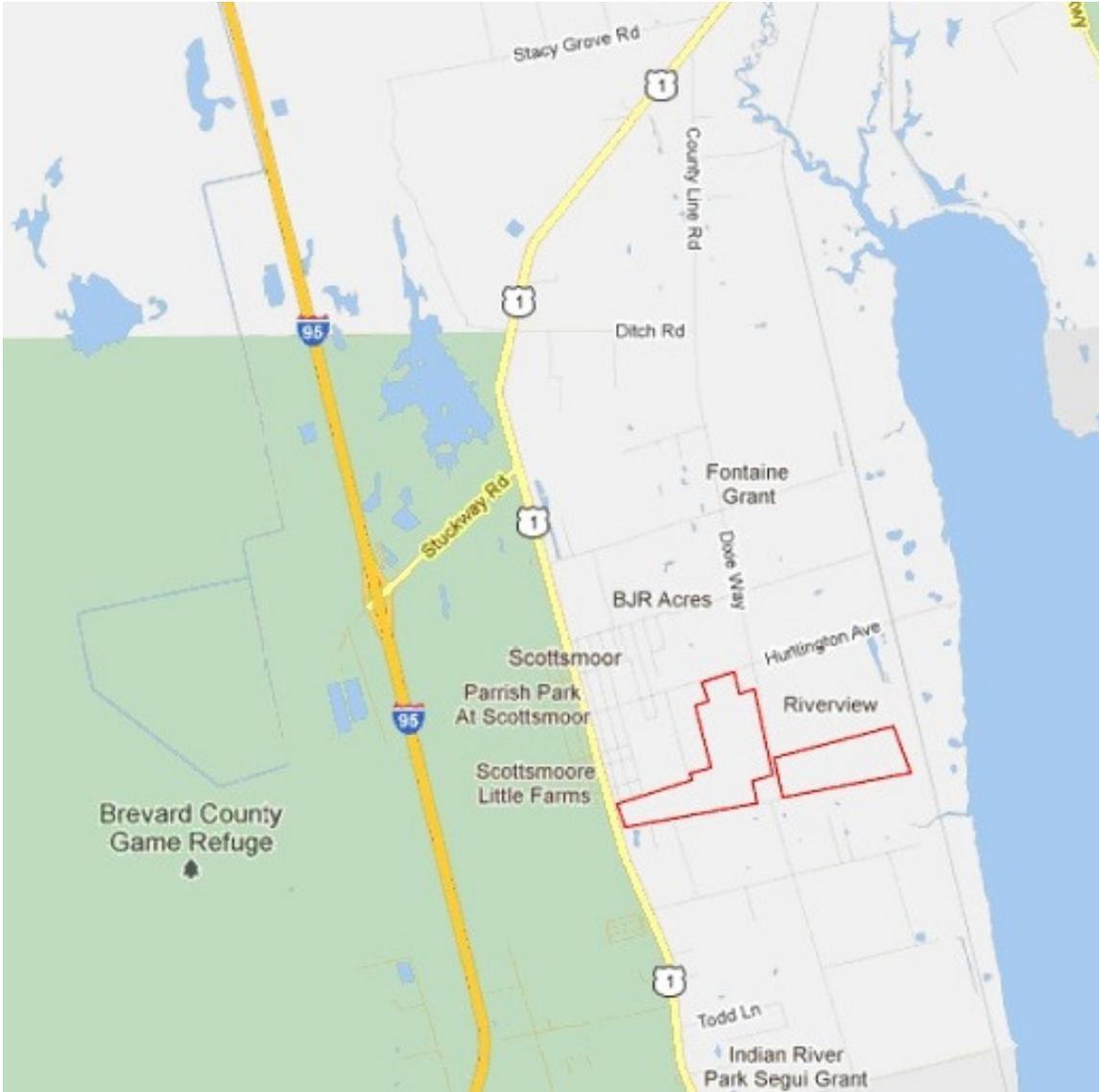
Phase I Environmental Site Assessment (ESA), Approximately 318 Acres Along U.S. Highway 1, Between Pearl Street and Johns Road, Scottsmeer, Brevard County, Florida, prepared by Weaver Boos Consultants (July 2011).

Preliminary Geotechnical Subsurface Investigation, prepared by TTL Associates, Inc. (August 2011).

"A Cultural Resources Assessment of the Proposed 318-Acre Scottsmoor VA Cemetery Site", prepared by Atkins (April 2012).



<b>FIGURE 1 – REGIONAL LOCATION MAP</b>  <b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b>  <b>PROPOSED NATIONAL CEMETERY</b> <b>BREVARD COUNTY, FLORIDA</b>	<b>PREPARED FOR VA</b>	
	<b>WBC PROJECT</b> <b>2961-351-01-01</b>  <b>JULY 2012</b>	



<p><b>FIGURE 2 – SITE LOCATION MAP</b></p> <p><b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b></p> <p><b>PROPOSED NATIONAL CEMETERY</b></p> <p><b>BREVARD COUNTY, FLORIDA</b></p>	<p><b>PREPARED FOR VA</b></p>	
	<p><b>WBC PROJECT</b> <b>2961-351-01-01</b></p> <p><b>JULY 2012</b></p>	



<p><b>FIGURE 3 – SITE LOCATION MAP</b></p> <p><b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b></p> <p><b>PROPOSED NATIONAL CEMETERY</b></p> <p><b>BREVARD COUNTY, FLORIDA</b></p>	<p><b>PREPARED FOR VA</b></p>	
	<p><b>WBC PROJECT</b> <b>2961-351-01-01</b></p> <p><b>JULY 2012</b></p>	



<b>FIGURE 4 – SITE LOCATION MAP</b>  <b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b> <b>PROPOSED NATIONAL CEMETERY</b> <b>BREVARD COUNTY, FLORIDA</b>	<b>PREPARED FOR VA</b>	
	<b>WBC PROJECT</b> <b>2961-351-01-01</b>  <b>JULY 2012</b>	<b>WEAVER</b> <b>BOOS</b> <b>CONSULTANTS</b>

## SECTION 2: DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

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### 2.1 Introduction

This Section provides the reader with necessary information regarding the Proposed Action and its alternatives, including those that VA initially considered, but eliminated, and the reasons for eliminating them. The screening criteria and process developed and applied by VA to hone the number of reasonable alternatives are described, providing the reader with an understanding of VA's rationale in ultimately retaining for analysis the Preferred Action Alternative Site, located east of Highway 1, north of Johns Road, east and west of Dixie Way, south of Huntington Avenue, and west of the Florida East Coast Railroad, southeast of Scottsmoor in Brevard County, Florida, that best meets VA's purpose of and need for the Proposed Action.

### 2.2 Proposed Action

VA's Proposed Action is to select and acquire a site on which to ultimately establish a new VA National Cemetery, including the necessary infrastructure, on at least 200 contiguous and developable acres within a 37-mile radius of the interchange of Interstate 95, and Routes A1A and 528 near Merritt Island/Titusville, Florida. The proposed cemetery would provide additional capacity, as well as improved access to Veterans and their families (i.e., reduced travel time to a National Cemetery) and would balance the currently unequal geographic distribution of VA National Cemeteries within the State of Florida (see [Figure 1](#)).

Currently there are no design plans for this proposed National Cemetery. However, VA would follow the VA's National Cemetery Administration (NCA) *Facilities Design Guide* (VA 2008, or its successor) in developing the proposed cemetery design. [Figure 5](#) presents a typical layout of a VA National Cemetery, including various standard components.

VA would acquire the Preferred Action Alternative in 2012 and would initiate the formal cemetery design process approximately four to six months after acquiring the Site. The design process will occur over a fourteen to sixteen month period. No construction would be initiated until that design process is complete. As part of that process, VA would complete a tiered, site-specific EA, in accordance with the above regulations, as part of the formal cemetery design process (VA 2011).

Based on the NCA Design Guide (VA 2008) and preliminary conceptual design data, the proposed National Cemetery would, at minimum, include the following components:

Appropriate turning and deceleration lane(s) on adjacent public road(s) and, potentially, a stop light or other traffic-signaling device for main entrance.

A gated entrance, designed to provide a sense of a National Shrine or ceremonial place. The entrance road would be a divided boulevard with a stone monument at the entrance, indicating the name of the cemetery.

An Administration and Public Information Building in the vicinity of the cemetery entrance. This building would be architecturally consistent with the cemetery design, and would be a

small (i.e., size not yet determined) building designed to serve as office space for approximately six staff members. The structure would include appropriate storage, administration, and restroom facilities, as well as adjacent parking for staff and a few visitor spaces. All facilities would be American with Disabilities Act (ADA) compliant. No parking facilities, other than those associated with the Administration and Public Information Building, would be included.

Near the Administration and Public Information Building would be three separate lanes that split off from the main entrance road, used for staging funeral processions. These lanes would be designed to hold at least 90 vehicles total. Beyond this would be an approximately 22-foot wide road that would wind throughout the cemetery in harmony with the natural grade and environmental features of the land. This road would loop back around the property to maintain a complete, simple traffic pattern around the cemetery. All of the onsite roads would have a speed limit of 15 miles per hour (mph).

Two permanent committal shelters would be constructed for ceremonies (i.e., there are no grave-side ceremonies at National Cemeteries). These shelters would be designed and located where there are scenic views, maximum weather protection, and minimal potential for noise disruption. Each shelter would be designed to accommodate up to six burials per day, resulting in a maximum potential of 12 burials per day.

An assembly area would be centrally located at a visible, high elevation, and would include a flagpole bearing the US flag. Non-burial ceremonies would occur at the assembly area. The ideal location would present a natural amphitheater setting.

A Memorial Wall and Walkway, with markers for those Veterans not physically located in the cemetery (i.e., missing in action, buried at sea, etc.), are proposed, separate from the assembly area. A Prisoner of War/Missing in Action (POW/MIA) flag would be located on the Memorial Walkway. The Memorial Walkway would be located in an aesthetically pleasing area of the site where grave site development is too difficult.

A maintenance facility is proposed, and would be located in an area out of general view, while still being convenient for maintenance staff. A secondary entrance to this maintenance facility would be developed.

The National Cemetery would be developed in phases. The initial phase would include the construction of the cemetery roads, entrance, Administration and Public Information Building, committal shelters, and maintenance facility. Each subsequent phase would have space for 1,000 grave sites per year for 10 years, and 250 cremation sites per year for 10 years, bringing the collective total for each phase to 10,000 grave sites and 2,500 cremation sites. The cremation sites would be located in columbariums spread throughout the phase. The size of each phase, and the total number of phases, is currently unknown. However, each phase is estimated to include approximately 25 acres.

Environmentally constrained areas (e.g., wetlands) and areas that are otherwise difficult to develop (e.g., steeper slopes) would be left undeveloped and remain as scenic locations at the cemetery. The utilized portions of the Site would be developed to within 20 feet of the Site boundaries.

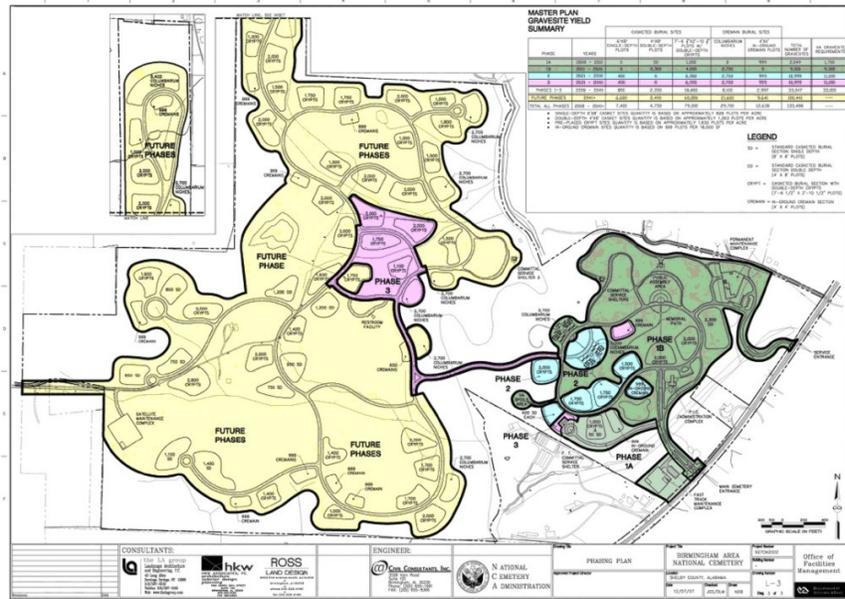
Due to the Site's seasonal high water table and low elevation, site elevations will be increased in grave site areas through a combination of importing clean fill to the Site and/or cut-and-fill activities. Proposed development would primarily be located in relatively level higher elevation areas, following natural contours to the extent possible. Development would include the installation of grave sites, which would consist of a gravel base, drainage piping, and a pre-cast concrete vault/crypt with 4 spaces per crypt. Approximately 20-22 inches of soil would be placed on top of each crypt. This design would provide the most space-efficient option. Each grave site would be marked with a small, upright marble headstone.

Utilities, including potable and irrigation water, sewer, electric, and other supporting infrastructure would be extended to and throughout the Site, as required.

Prior to construction, VA would obtain all required Federal, State, and local permits for the proposed cemetery development from appropriate government authorities. Due to the nature of the proposed cemetery, it is likely that VA would avoid any significant onsite environmental resources through sensitive site design, including avoidance of significant natural and cultural resources, should such resources be discovered in any subsequent tiered Site-specific EA or SEA.

As described in Section 1.1, once a Site (i.e., alternative) is selected and acquired through this programmatic NEPA process, VA will prepare a subsequent, site-specific, "tiered" EA to more precisely analyze and evaluate the potential effects of the construction and operation of the proposed VA National Cemetery. VA would incorporate the avoidance and management measures identified in this PEA into that future design process and tiered NEPA analysis to minimize potential environmental effects.

As required under CEQ Regulations, this PEA considers the impacts of the Proposed Action with the other proposed onsite and nearby projects, as well as other past, present, and reasonably foreseeable future actions in this vicinity. This discussion is presented in the PEA's cumulative impact analysis (see Section 3.17).



<p><b>FIGURE 5 – REPRESENTATIVE NATIONAL CEMETERY DESIGN LAYOUT (EXAMPLE ONLY)</b></p> <p><b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b></p> <p><b>PROPOSED NATIONAL CEMETERY</b></p> <p><b>BREVARD COUNTY, FLORIDA</b></p>	<p><b>PREPARED FOR VA</b></p>	
	<p><b>WBC PROJECT</b></p> <p><b>2961-351-01-01</b></p> <p><b>JULY 2012</b></p>	

## 2.3 Alternatives Analysis

The NEPA, CEQ Regulations, and 38 CFR Part 26 require that all reasonable alternatives be rigorously explored and objectively evaluated. Alternatives that are eliminated from detailed study must be identified along with a brief discussion of the reasons for eliminating them. For purposes of analysis, an alternative was considered "reasonable" only if it would enable VA to accomplish the primary mission of providing a suitable cemetery site that meets the purpose of and need for the Proposed Action. "Unreasonable" alternatives would not enable VA to meet the purpose of and need for the Proposed Action.

### 2.3.1 Alternatives Development (Screening Criteria)

Per VA's criteria as published in the solicitation described in Section 1.3, VA initially identified that a reasonable site needs to be: at least 200 acres in size, located within a 37-mile radius of the interchange of Interstate 95, and Routes A1A and 528 near Merritt Island/Titusville, Florida, and proximate to a major highway or roadway to facilitate access. In addition, a reasonable site would have no or few existing environmental concerns and have a current zoning designation that would allow for the establishment of a National Cemetery.

VA received numerous responses (i.e., offering of sites) to this solicitation. A VA SSB, composed of VA professionals from various disciplines, visited each site. Each member of the SSB evaluated and scored each of the sites based on specific site selection criteria. Site ranking was determined by the aggregate scores of each individual SSB member for each site. Through this process, one site located southeast of Scottsmeer in Brevard County, Florida was determined to be best qualified. This site includes approximately 318 acres of land and is referred to as the Preferred Action Alternative site in this PEA.

The following are the Evaluation Factor Guidelines which describe the factors (under four broad headings) that VA's SSB applied to score and rank each site. VA completed this process based on the information that was available to the SSB at the time of the evaluation.

- **Compatibility of the Surrounding Area:** The site must be in an area characterized by pleasantly landscaped and architecturally appealing commercial, residential, or agricultural land uses compatible with a National Cemetery. The site should have aesthetically appealing views and surroundings. The site should have minimal disturbing factors or noise intruding from neighboring areas or streets, and which are not detrimental to a cemetery setting. The current zoning should provide for cemetery use, and zoning of surrounding properties should be compatible with a cemetery setting.
- **Accessibility:** The site must be within a 37-mile radius of the interchange of Interstate 95, and Routes A1A and 528 near Merritt Island/Titusville, Florida. The site should be located near a major highway to improve access and minimize travel time to and from the site. The condition/capacity of connecting access roadways should be adequate for cemetery traffic. If in a developed area, the site should be located on a divided highway with a traffic-signalized entrance and full acceleration/deceleration lanes at multiple entrances. If in a rural area, the site should be located on a broad roadway with ample linear road frontage and visual sightlines adequate to provide safe and unrestricted points of vehicular egress and ingress. Public transportation connections between the site and population centers should be readily available.
- **Man-made Conditions:** The site must include at least 200 acres of contiguous developable land. The site must be relatively rectangular or regular in shape and not divided by public roads or easements. The site should have utilities (i.e., electric, telephone/cable, potable water, sanitary sewer, storm sewer, water for irrigation) available onsite or in close proximity to the site. The site should have minimal or no

solid and hazardous materials/wastes issues present. The site should be clear of footings, roadways, ordinance, and other similar obstructions to development. There should be no known significant archaeological areas or resources on the site, including historic or other structures that offer little or no value to cemetery operations. There should be no known easements or rights-of-way (ROWS) that would impede development.

- **Environmental (Natural) Conditions:** The site must be level to gently rolling, with most slopes not exceeding six percent. Soil characteristics should be adequate for construction, burials, and top soil. The site should contain no rock or subsurface obstructions. Natural drainage features and groundwater depths and capacity must be acceptable and conducive to proposed cemetery development. The site should contain few or no wetlands, natural waterways, 100-year floodplains, or significant or protected biological resources (i.e., flora, fauna, natural habitats, or protected species) that would unreasonably limit development.

Through this analysis, VA identified one suitable site that best met all of VA's screening criteria. This Site includes approximately 318 acres located east of Highway 1, north of Johns Road, east and west of Dixie Way, south of Huntington Avenue, and west of the Florida East Coast Railroad (see [Figures 2, 3, and 4](#)). This Site, referred to as the Preferred Action Alternative Site in this PEA, is described in Section 2.3.2.

None of the other sites evaluated by VA were as able to fulfill VA's screening criteria. Table 1 presents a summary of VA's comparison of the Preferred Action Alternative Site, and the No Action Alternative against each of these criteria.

**Table 1. Evaluation of Initial Alternatives against Established Screening Criteria.**

	Preferred Action Alternative Site	No Action Alternative
Size	Y	N/A
Compatibility of the Surrounding Area	Y	N/A
Accessibility	Y	N
Man-Made Conditions	Y	N/A
Environmental (Natural) Conditions	Y-	N/A
Reasonable?	Y	N

**Key:**

**Y** = Alternative meets criterion/is reasonable based on initial screening.

**N** = Alternative does not meet criterion/is not reasonable based on initial screening.

**N/A** = Criterion is not applicable to the Alternative.

**+/-** = Alternative is superior (+) or inferior (-) in meeting this criterion).

### 2.3.2 Evaluated Alternatives

#### **Preferred Action Alternative**

VA would select and acquire the approximately 318-acre Site for future establishment of a new National Cemetery. This Site is located east of Highway 1, north of Johns Road, east and west of Dixie Way, south of Huntington Avenue, and west of the Florida East Coast Railroad, southeast of Scottsmoor in Brevard County, Florida (see [Figures 2, 3, and 4](#)).

The current property owner is First Equity Development Group, Inc. The 318-acre Site is comprised of agricultural fields, pastures, and undeveloped wooded land. No buildings are located on the Site. The area located adjoining to the north is currently occupied by undeveloped wooded land, unimproved farmland, scattered commercial properties, and a residential neighborhood. The area located adjoining to the east is currently occupied by a small private airfield (Tradewinds Aerodrome Airport) and Florida East Coast Railroad tracks, beyond which is the Indian River. The area located adjoining to the south is currently occupied by undeveloped land, unimproved farmland, and scattered residential and commercial properties. The area located adjoining to the west is currently occupied by undeveloped land and residential properties. The Preferred Action Alternative would be implemented as described in Section 2.2.

The Preferred Action Alternative effectively provides a suitable combination of land, location, and existing, required infrastructure (i.e., per the screening criteria described in Section 2.3.1), and meets the purpose of and need for the Proposed Action.

### **No Action Alternative**

Under the No Action Alternative, the Proposed Action would not be implemented. Veterans and their families residing in east-central Florida would continue to be underserved and would continue to be required to travel a substantial distance to a National Cemetery (see [Figure 1](#)). The distribution of VA National Cemeteries throughout the State of Florida would continue to be unequal and VA would not be in compliance with the requirements of the service members Civil Relief Act. The Preferred Action Alternative Site likely would be developed for other uses by its current owners in accordance with local zoning regulations.

While the No Action Alternative would not satisfy the purpose of or need for the Proposed Action, this alternative was retained to provide a comparative baseline against which to analyze the effects of the Proposed Action, as required under the CEQ Regulations (40 CFR Part 1502.14). The No Action Alternative reflects the *status quo* and serves as a benchmark against which the effects of the Proposed Action can be evaluated.

### **2.3.3 Alternatives Eliminated From Detailed Consideration**

As described in Section 2.3.1, VA eliminated alternative potential sites for the proposed National Cemetery through the screening process. Through this process, the Preferred Action Alternative Site in Brevard County was determined to best meet all of VA's screening criteria. As such, other alternatives were eliminated from further consideration.

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## SECTION 3: AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

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### 3.1 Introduction

This Section describes the baseline (existing) physical, environmental, cultural, and socioeconomic conditions at the proposed National Cemetery site located southeast of Scottsmoor in Brevard County, Florida (i.e., the Preferred Action Alternative Site or Site; see [Figures 1, 2, 3, and 4](#)) and its general vicinity, with emphasis on those resources potentially affected by the Proposed Action. Appendix B provides photographs, with captions, of the Site and its surroundings. Under each resource area, the potential direct, indirect, and cumulative effects of implementing the Proposed Action and the No Action Alternative on this environment are identified.

In this PEA, impacts are identified as either significant, less than significant (i.e., common impacts that would not be of the context or intensity to be considered significant under the NEPA or CEQ Regulations), or no impact. As used in this PEA, the terms "effects" and "impacts" are synonymous. Where appropriate and clearly discernable, each impact is identified as either adverse or positive.

The CEQ Regulations specify that in determining the significance of effects, consideration must be given to both "*context*" and "*intensity*" (40 CFR 1508.27):

**Context** refers to the significance of an effect to society as a whole (human and national), to an affected region, to affected interests, or to just the locality. In other words, the context measures how far the effect would be "felt."

**Intensity** refers to the magnitude or severity of the effect, whether it is beneficial or adverse. Intensity refers to the "punch strength" of the effect within the context involved.

In this PEA, the significance of potential direct, indirect, and cumulative effects has been determined through a systematic evaluation of each considered alternative in terms of its effects on each individual environmental resource component.

Significance criteria for resource areas considered in this PEA are as follows:

- *Aesthetics*. An alternative could significantly affect visual resources if it resulted in abrupt changes to the complexity of the landscape and skyline (i.e., in terms of vegetation, topography, or structures) when viewed from points readily accessible by the public.
- *Air quality*. An alternative could have a significant air quality effect if it would result in substantially higher air pollutant emissions or cause established air quality standards to be exceeded.
- *Cultural resources*. An alternative could have a significant effect on cultural resources if it would: result in damage, destruction, or demolition to an archaeological site or building that is eligible or listed on the National Register of Historic Places (NRHP); promote neglect of such a resource, resulting in resource deterioration or destruction; introduce audio or visual intrusion to such a resource;

or decrease access to resources of value to federally recognized Native American tribes. Impact assessment for cultural resources focuses on properties that are listed in or considered eligible for the NRHP or are National Historic Landmarks.

- *Geology and Soils.* If an alternative would result in an increased geologic hazard or a change in the availability of a geologic resource, it could have a significant effect. Such geologic and soil hazards would include, but not be limited to, seismic vibration, land subsidence, and slope instability.
- *Hydrology and Water Quality.* If an alternative would result in a reduction in the quantity or quality of water resources for existing or potential future use, it could have a significant effect. A significant effect could occur if the demand exceeded the capacity of the potable water system.
- *Wildlife and Habitat.* The effect of an alternative on biological resources and ecosystems could be significant if it would disrupt or remove any endangered or threatened species or its designated critical habitat. The loss of a substantial number of individuals of any plant or animal species (sensitive or non-sensitive species) that could affect the abundance or diversity of that species beyond normal variability could also be considered significant. The measurable degradation of sensitive habitats, particularly wetlands, could also be significant.
- *Noise.* An alternative could have a significant noise effect if it would generate new sources of substantial noise, increase the intensity or duration of noise levels to sensitive receptors, or result in exposure of more people to unacceptable levels of noise.
- *Land use.* If an alternative would conflict with adopted plans and goals of the affected community or if it would result in a substantial alteration to the present or planned land use of an area, it could have a significant direct effect. If an alternative would result in substantial new development or prevent such development elsewhere, it could have a significant indirect effect. In addition, an alternative could significantly affect visual resources if it resulted in abrupt changes to the complexity of the landscape and skyline (i.e., in terms of vegetation, topography, or structures) when viewed from points readily accessible by the public.
- *Floodplains, Wetlands, and Coastal Zone Management.* An alternative could have a significant effect on water resources if it would cause substantial flooding or erosion, if it would subject people or property to flooding or erosion, or if it would adversely affect a significant water body, such as a stream or lake.
- *Socioeconomics.* If an alternative would substantially alter the location and distribution of the population within the geographic "region of influence (ROI)," cause the population to exceed historical growth rates, or substantially affect the local housing market and vacancy rates, the effect would be significant. Significant effects could occur if an alternative caused disproportionate risks to children that resulted from environmental health risks or safety risks. In addition, an alternative could have a significant effect if it would create a need for new or increased fire or police protection, or medical services, beyond the current capability of the local community, or would decrease public service capacities so as to jeopardize public safety. *It is important to note that, per CEQ Regulations (40 CFR 1508.14), social or economic effects are not intended by themselves to require preparation of an EIS.* Only when social or economic effects are interrelated with natural or physical environmental effects would all of these effects be analyzed as part of the NEPA process.

- *Community Services.* An alternative could have a significant effect on infrastructure if it would increase demand over capacity, requiring a substantial system expansion or upgrade, or if it would result in substantial system deterioration over the current condition.
- *Solid and Hazardous Materials.* An alternative could have a significant effect if it would result in a substantial increase in the generation of hazardous substances, increase the exposure of persons to hazardous or toxic substances, increase the presence of hazardous or toxic materials in the environment, or place substantial restrictions on property use due to hazardous waste, materials, or site remediation. Data provided in site-specific Environmental Site Assessments (ESAs) and other prior HTMW studies helps to identify these potential impacts, as well as their significance.
- *Transportation and Parking.* An alternative could have a significant effect on infrastructure if it would increase demand over capacity, requiring a substantial system expansion or upgrade, or if it would result in substantial system deterioration over the current condition. For instance, an alternative could have a significant effect on traffic if it would increase the volume of traffic beyond the existing road capacity, cause parking availability to fall below minimum local standards, or require new or substantially improved roadways or traffic control systems.
- *Utilities.* An alternative could have a significant effect on infrastructure if it would increase demand over capacity, requiring a substantial system expansion or upgrade, or if it would result in substantial system deterioration over the current condition.
- *Environmental Justice.* Significant effects could occur if an alternative would disproportionately affect minority or low-income populations.

### 3.2 Aesthetics

The approximately 318-acre Site is situated in a predominantly low-density residential and agricultural area, southeast of Scottsmeer in Brevard County, Florida (see [Figures 2, 3, and 4](#)). The Site is located approximately 0.5 mile southeast of the center of Scottsmeer, Florida; approximately 10.5 miles north-northwest of Titusville, Florida; approximately 32 miles south of Daytona Beach, Florida; approximately 34 miles northeast of Orlando, Florida; and approximately 115 miles southeast of Jacksonville, Florida. First Equity Development Group, Inc. currently owns the Site (Brevard County 2011). The Site is located east of Highway 1, north of Johns Road, east and west of Dixie Way, south of Huntington Avenue, and west of the Florida East Coast Railroad. The Site is comprised of agricultural fields, pastures, and undeveloped wooded land. No buildings are located on the Site.

The adjacent area located to the north is currently undeveloped wooded land, unimproved farmland, scattered commercial properties (along Highway 1), and a residential neighborhood. The adjacent area located to the east is currently occupied by a small, private airfield (Tradewinds Aerodrome Airport) and Florida East Coast Railroad tracks, beyond which is the Indian River. The adjacent area located to the south is currently undeveloped land, unimproved farmland, and scattered residential and commercial properties (along Highway 1). The adjacent area located to the west is currently undeveloped land and residential properties. The surrounding land uses are depicted in [Figure 4](#).

### 3.2.1 Effects of the No Action Alternative

Under the No Action Alternative, no significant adverse aesthetics impacts would result. Should the Site ultimately be developed for another use, aesthetics impacts could result from that changed land use.

### 3.2.2 Effects of the Preferred Action Alternative

Acquisition of the Preferred Action Alternative Site by VA would produce no direct aesthetics effects, as no changes to the aesthetics would occur. Future development of a new National Cemetery on the Site would produce visual changes. Given the active agricultural use of the majority of the Site, future development of a new National Cemetery would not be expected to require significant tree clearing. Due to the Site's seasonal high water table and low elevations, site elevations would be increased in grave site areas through importing clean fill and/or grading. VA would grade the site in concert with the site's natural contours, where possible. The raised areas would be visibly noticeable; however, the proposed cemetery would be expected to result in less-than-significant adverse visual effects.

Future proposed cemetery development plans would be designed to comply with Brevard County ordinances. By complying with these ordinances, and given that the proposed cemetery would be designed to blend with the existing landscape, no significant adverse aesthetics effects would be anticipated.

### 3.2.3 Mitigation/Management Measures

No project-specific mitigation measures are required.

Future proposed cemetery development of the Preferred Action Alternative Site would comply with the following local (Brevard County) ordinances:

VA would comply with the Brevard County Code of Ordinances, Chapter 22 (Buildings and Building Regulations, Chapter 62 (Land Development Regulations), Article XIII (Landscaping Tree Protection, Land Clearing, and Land Alteration), and Chapter 214 (Cemeteries).

Compliance with these local established ordinances would ensure that future aesthetics effects are maintained at acceptable levels.

## 3.3 Air Quality

### 3.3.1 Regulatory Background

#### Ambient Air Quality

The ambient air quality in an area can be characterized in terms of whether or not it complies with the primary and secondary National Ambient Air Quality Standards (NAAQS). The Clean Air Act, as amended (CAA and CAAA) requires the US Environmental Protection Agency (USEPA) to set NAAQS for pollutants considered harmful to public health and the environment. NAAQS are provided for the following principal pollutants, called "criteria pollutants" (as listed under Section 108 of the CAA):

- Carbon monoxide (CO)
- Lead (Pb)
- Nitrogen oxides (NO<sub>x</sub>)
- Ozone (O<sub>3</sub>)

- Particulate matter (PM), divided into two size classes:
  - Aerodynamic size less than or equal to 10 micrometers (PM<sub>10</sub>)
  - Aerodynamic size less than or equal to 2.5 micrometers (PM<sub>2.5</sub>)
- Sulfur dioxide (SO<sub>2</sub>)

Areas are designated by the USEPA as "attainment", "non-attainment", "maintenance", or "unclassified" with respect to the NAAQS. Regions in compliance with the standards are designated as "attainment" areas. In areas where the applicable NAAQS are not being met, a "non-attainment" status is designated. Areas that have been classified as "non-attainment" but are now in compliance can be re-designated "maintenance" status if the state completes an air quality planning process for the area. Areas for which no monitoring data is available are designated as "unclassified", and are by default considered to be in attainment of the NAAQS. According to the Florida Department of Environmental Protection (FDEP), Division of Air Resource Management, Brevard County is currently designated as a full attainment area (FDEP 2011).

#### Operating Permits

The CAA regulates criteria pollutants as well as 187 specifically listed hazardous air pollutants (HAPs). The Title V Operating Permit Program under 40 CFR Part 70 requires sources that meet the definition of a "major source" of criteria pollutants or HAPs to apply for and obtain a Title V operating permit. A major source of HAPs has the potential to emit (PTE) more than 10 tons per year (tpy) of any individual HAP, or 25 tpy of any combination of HAPs. The definition of major source for criteria pollutants is dependent on the air quality attainment status of the region where the source is located (i.e., areas that are in attainment or non-attainment with the NAAQS). Major sources have a PTE more than 100 tpy of any criteria pollutant in an attainment area or lower levels in various classifications of non-attainment (i.e., marginal, moderate, serious, severe, and extreme).

Given current land use of the Site (i.e., unimproved farmland), no sources of regulated air emissions exist (e.g., from boilers, generators, or other minor equipment). The owner of the Site does not have, and is not required to have, a Title V operating permit.

#### State and Local Regulations

The FDEP, Division of Air Resource Management, coordinates State-wide air compliance and enforcement activities. The Air Compliance Assurance (ACA) Section promotes air compliance through the department's district offices and the approved local program offices. ACA oversees air compliance and enforcement data management and provides required data to the USEPA. Responsibilities also include the coordination of air enforcement statewide and conducting special projects in air compliance assurance.

Florida's statewide air quality monitoring network is operated by both State and local environmental programs. The air is monitored for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. The monitors tend to be concentrated in areas with the largest population densities. Not all pollutants are monitored in all areas.

Florida's Air Quality System provides the public and units of local, State, and Federal government with measurements of pollutant concentration levels in the ambient air – ambient air being generally defined as that portion of the atmosphere near ground level and external to buildings or other structures (FDEP 2011).

Brevard County maintains air quality through the Brevard County Code of Ordinances, Chapter 222 (Environment), Article II (Pollution), Division 2 (Pollution Control Act).

### Conformity with State Implementation Plans

The General Conformity Provision of the CAA of 1970 (42 USC 7401 *et seq.*; 40 CFR Parts 50-87) Section 176(c), including the USEPA's implementation mechanism, the General Conformity Rule (40 CFR Part 51, Subpart W), prohibits the Federal government from conducting, supporting, or approving any actions that do not conform to a USEPA-approved State Implementation Plan (SIP). A SIP is a state's self-authored blueprint for achieving and maintaining compliance with the goals of the CAA. Federal agencies prepare written Conformity Determinations for Federal actions in or affecting NAAQS non-attainment areas or maintenance areas when the total direct and indirect emissions of non-attainment pollutants (or their precursors) exceed specified thresholds. Conformity with the SIP is demonstrated if project emissions fall below threshold values.

As Brevard County is currently designated as a full attainment area, a Conformity Determination is not required for VA's Proposed Action.

### **3.3.2 Sensitive Receptors**

Sensitive air quality receptors in the vicinity of the Site are limited and include local residential land uses (see Figure 4). Outward Bound School (3558 Sunset Avenue) is located approximately 0.5 mile north of the Site. There are no other schools or hospitals located within 0.5 mile of the Site. No other sensitive air quality receptors were identified.

### **3.3.3 Effects of the No Action Alternative**

Under the No Action Alternative, no significant adverse air quality impacts would result. Should the Site ultimately be developed for another use, air quality impacts could result from that changed land use, and would depend upon the nature of the development.

### **3.3.4 Effects of the Preferred Action Alternative**

Acquisition of the Preferred Action Alternative Site by VA would produce no direct air quality effects. However, future development of a new National Cemetery would produce air quality effects, discussed below.

Air emissions generated from the future proposed cemetery development would be expected to have *less-than-significant direct and indirect, short- and long-term adverse impacts* to the existing air quality environment around the Site. Impacts would include short-term and long-term increased air emission levels as a result of: 1) Construction activities and 2) Operation of the proposed National Cemetery and onsite activities.

Construction activities would be performed in accordance with Federal and State air quality requirements. Construction-related emissions are generally short-term, but may still have adverse impacts on air quality, primarily due to the production of dust. Dust can result from a variety of activities, including excavation, grading, and vehicle travel on paved and unpaved surfaces. Dust from construction can lead to adverse health effects and nuisance concerns, such as reduced visibility on nearby roadways. Implementing dust control measures (BMPs) significantly reduces dust emissions from construction. The amount of dust is dependent on the intensity of the activity, soil type and conditions, wind speed, and dust suppression activities used. Implementation of BMPs, discussed below, would further minimize these anticipated less-than-significant adverse, short-term impacts.

Over the long-term, the Proposed Action would result in site visits by Veterans and their families, including additional vehicle miles traveled to and from the new National Cemetery. A net minor long-term increase in local vehicle miles (and associated emissions) is anticipated, as visitors would visit the Site. However, overall vehicle emissions would decrease because

regional Veterans and their families would not be required to travel greater distances to other cemeteries in Florida (see [Figure 1](#)). In addition, the Preferred Action Alternative Site is located in a full attainment area; as such, a Record of Non-Applicability (RONA) under the Clean Air Act of 1990 is not required. A Title V operating permit is not anticipated to be required for the proposed minor equipment associated with the cemetery as, based upon preliminary sizing, this equipment is not anticipated to emit more than 100 tpy of any individual HAP or combination of HAPs. However, VA would secure any required, individual minor air emissions permits from the FEDP, as appropriate and based on the final design. The FDEP is responsible for conducting inspections of industrial air pollution sources, auditing of annual performance tests, investigating industry-related complaints, and other oversight activities related to stationary sources (FDEP 2011). No long-term significant adverse air quality impacts are anticipated.

### 3.3.5 Mitigation/Management Measures

No project-specific mitigation measures are required.

Implementing BMPs to reduce fugitive dust emissions during construction would further minimize the potential impacts on local air quality. To minimize the potential for adverse, short-term air quality impacts, VA would implement the following typical dust control BMPs, as applicable, and in accordance with State and local requirements:

- VA would comply with the Brevard County Code of Ordinances, Chapter 222 (Environment), Article II (Pollution), Division 2 (Pollution Control Act).
- Use appropriate dust suppression methods during onsite construction activities. Available methods include application of water, dust palliative, or soil stabilizers; use of enclosures, covers, silt fences, or wheel washers; and suspension of earth-moving activities during high wind conditions.
- Maintain an appropriate speed to minimize dust generated by vehicles and equipment on unpaved surfaces.
- Cover haul trucks with tarps.
- Stabilize disturbed areas through re-vegetation or mulching if the area would be inactive for several weeks or longer (unlikely).
- Visually monitor all construction activities regularly, particularly during extended periods of dry weather, and implement dust control measures when appropriate.

These dust-reducing BMPs would be briefed to the construction contractors. The onsite construction manager would be responsible for addressing air quality issues if they arise. Implementation of these BMPs would reduce the potential for short-term adverse air quality impacts to acceptable levels, notably for nearby sensitive receptors (i.e., residential areas near the Site).

In addition, VA would secure any required, individual minor air emissions permits from the FDEP, as appropriate and based on the final design and prior to operation of the proposed National Cemetery.

### 3.4 Cultural Resources

Cultural resources are the physical evidence of our heritage. Cultural resources include: historic properties as defined in the National Historic Preservation Act (NHPA), cultural items as defined in the Native American Graves Protection and Repatriation Act (NAGPRA), archeological resources as defined in the Archaeological Resources Protection Act (ARPA),

sacred sites as defined in EO 13007 to which access is provided under the American Indian Religious Freedom Act (AIRFA), and collections as defined in 36 CFR Part 79, *Curation of Federally Owned and Administered Collections*. Requirements set forth in NEPA, NHPA, ARPA, NAGPRA, AIRFA, 36 CFR Part 79, EO 13007, and Presidential Memorandum on *Government-to-Government Relations with Native American Tribal Governments* define the basis of VA's compliance responsibilities for management of cultural resources. Regulations applicable to VA's management of cultural resources include those promulgated by the Advisory Council on Historic Preservation (ACHP) and the National Park Service (NPS).

### 3.4.1 Architectural and Archaeological Resources

Preliminary field observations did not identify artifacts, historical structures, or unusual mounds indicative of cultural resources on the Site. In a response to a request for input on the Proposed Action, the Florida Division of Historical Resources (SHPO) stated that the Florida Master Site File indicated that no known archeological and historical resources are located on or adjacent to the Site, and stated that the information provided does not constitute a project review. SHPO further stated that Federal, State, and local laws require a formal environmental review for most projects. In addition, SHPO stated that VA should contact the Compliance and Review Section of SHPO. VA contacted the Compliance and Review Section of the SHPO as requested; a response is pending.

SHPO provided VA with a copy of an Archeological Assessment of Six Selected Areas in Brevard County, Florida (Archeological Assessment), prepared by the Institute of West Florida Archeology and dated May 1990. One of the six selected areas of the Archeological Assessment (Area 6) included the Preferred Action Alternative Site. The Archeological Assessment indicated that archeological investigations were conducted in areas of Brevard County, Florida, as selected by the Brevard County Comprehensive Planning Commission. The purpose of the Archeological Assessment was to determine if a pattern of "archeological finds" in Brevard County could be identified in order to apply a predictive model to future development in the county. The Archeological Assessment noted that the scope of the project only included a reconnaissance-level archeological assessment and did not meet the level of effort associated with a standard Phase I Archeological Survey.

The Preferred Action Alternative Site was included in the North Indian River Sector: Area 6 portion of the Archeological Assessment. The Archeological Assessment identified Area 6 as primarily a low probability area for archeological sites due to the lack of well-drained lands on which to establish a settlement. The Archeological Assessment identified five areas in Area 6 that were considered high probability areas for archeological sites due to their location along the mouths of tidal creeks; which are considered areas of high probability for archeological sites throughout the State of Florida.

The five high probability areas of Area 6 were all located on the east side of the Florida East Coast Railroad (east of the Site); the nearest being located approximately 1,500 feet east of the Site. No archeological sites were identified in the field reconnaissance of the five high probability portions of Area 6. The Site was identified as a low probability area due to a lack of well-drained land.

Brevard County has an ordinance pertaining to historical preservation (Brevard County Code of Ordinances, Chapter 58 (Historical Preservation)). The ordinance details the process and requirements for a Historic Preservation Commission, which functions as a recordkeeping mechanism.

Based on comments received from SHPO and the Seminole Tribe of Florida, "A Cultural Resources Assessment of the Proposed 318-Acre Scottsmeer VA Cemetery Site" (Assessment) was prepared by Atkins in April 2012. This assessment included fieldwork conducted in April 2012, local interviews, and a review of related source material. The review of related source material revealed the same results as those described above.

The specific fieldwork methodology included a pedestrian survey of the entire Site and subsurface testing (shovel tests) on various intervals along staggered transects based on professional judgment. All shovel tests were excavated approximately 50 centimeters in diameter to depth of one meter. All excavated soil was screened through a one-quarter inch hardware cloth or troweled. During the fieldwork, no intact cultural deposits or artifacts were encountered.

Local interviews were conducted with the current owner of the Site, adjacent property owners, long-time area residents, and local historians.

Based on the results of the Assessment, which included fieldwork, a review of related source material, and local interviews, it was determined that the development of the Site would have no effect on significant historical properties, as there are none to affect.

### **3.4.2 Native American Consultation/Coordination**

For all federally proposed actions, Federal agencies are required to consult with federally recognized Native American Tribes in accordance with the NEPA, the NHPA, the NAGPRA, and EO 13175.

VA consulted with four federally recognized Native American tribes as part of this NEPA process, in accordance with 36 CFR Part 800.2 and EO 13175, *Consultation and Coordination with Indian Tribal Governments*, 6 November 2000 (see Section 4). These tribes, identified as having possible ancestral ties to the area by the Native American Consultation Database (NACD) and SHPO, were invited by VA to participate in the PEA process as Sovereign Nations per EO 13175. VA sent a coordination and consultation letter to each of these tribes, via certified mail, in January 2012.

All correspondence was conducted by certified letters. A sample letter sent to the tribes and the listing of recipients is included in Appendix A. The Seminole Tribe of Florida did respond to the correspondence and requested that a Cultural Resources Assessment be conducted on the Site. As noted in Section 3.4.1, this Assessment was completed as requested.

### **3.4.3 Effects of the No Action Alternative**

Under the No Action Alternative, no significant cultural resources impacts would occur due to VA's proposed future cemetery development. However, if the Site was ultimately developed by its private (non-Federal) owner, any onsite cultural resources could be destroyed because the NHPA does not apply to non-Federal actions. As such, significant adverse effects to cultural resources, if present, could occur.

### **3.4.4 Effects of the Preferred Action Alternative**

Acquisition of the Preferred Action Alternative Site by VA would produce no direct cultural resources effects. Future development of a new National Cemetery on the Site could produce cultural resources effects; however, the Site is located in an area of low probability for cultural resources. Through compliance with the NHPA and other applicable regulations identified in Section 3.4, as well as consultation with the SHPO and federally recognized Native American Tribes, VA would maintain cultural resources effects at acceptable, less-than-significant levels.

### **3.4.5 Mitigation/Management Measures**

No project-specific mitigations measures are required.

VA would comply with the NHPA, ARPA, NAGPRA, AIRFA, 36 CFR Part 79, EO 13007 during the proposed future cemetery development process. As part of the SEA, VA would consult with the

SHPO and Tribes, and develop and implement appropriate management measures to ensure adverse effects to historic properties would not occur. Based on the low probability for cultural resources at the Site and the results of the Assessment, VA does not expect any significant cultural resources exist at the Site.

Should human remains or other cultural items as defined by NAGPRA be discovered during project construction, the construction contractor would immediately cease work until VA, a qualified archaeologist, and the SHPO are contacted to properly identify and appropriately treat discovered items in accordance with applicable State and Federal law(s).

Implementation of these measures would ensure potential impacts to cultural resources are maintained at acceptable, less-than-significant levels.

### 3.5 Geology and Soils

According to the US Geological Survey (USGS), the Site is included in the Eastern Flatwoods District of the Atlantic Coastal Ridge Physiographic Province. According to the Surface Stratigraphy of the Floridian Peninsula Map (dated 1994), the Site is underlain by Quaternary sands and gravel, underlain by Ocala and Suwannee Limestones.

A review of the Oak Hill and Mims, Florida USGS Topographic Quadrangles (dated 1992 and 1970, respectively) indicated that surficial topography in the vicinity of the Site [with onsite elevations ranging from approximately 29 feet above mean sea level (amsl) in the western portion to approximately 5 feet amsl in the eastern portion] is gently sloping down from the west to the east towards Indian River, located approximately 1,700 feet from the Site.

According to the Sinkhole Type Development and Distribution in Florida Map (dated 1985), the Site is located in an area covered with at least 30 to 200 feet of incohesive and permeable sands. The Site is located in an area where karst development is possible; however, sinkholes are described as few, shallow, of small diameter, and develop gradually. In addition, sinkholes, if any, are described as cover-subsidence sinkholes, which are defined by areas where cover material is relatively incohesive and permeable, and individual grains of sand move downward in sequence to replace grains that have themselves moved downward to occupy space formerly held by dissolved limestone.

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the Site contains thirteen soil types: Anclote sand, depressional (2), Bradenton fine sand, limestone substratum (8), Copeland-Bradenton-Wabasso complex, limestone substratum (16), Riviera sand (19), Floridana sand, depressional (22), Myakka sand (36), Orsino fine sand (41), Pomello sand (49), Pompano sand (51), St. Johns sand, depressional (55), Tavares fine sand (63), Wabasso sand (71), and Anclote sand (91).

The primary soil for the Site is Myakka sand, which accounts for approximately 42% of the Site. This soil is located throughout the western and central portions of the Site and is described as "a nearly level, poorly drained sandy soil in broad areas in the flatwoods and in areas between sand ridges and sloughs and ponds." The NRCS description also states that "in most years the water table is within a depth of 10 inches for 1 to 4 months and between 10 and 40 inches for more than 6 months. In dry seasons it is below a depth of 40 inches."

The secondary soil for the Site is Bradenton sand, which accounts for nearly 15% of the Site. This soil is located primarily at the eastern end of the Site and is described as "nearly level, poorly drained soil that has limestone within a depth of 40 inches. In most years the water table is within a depth of 10 inches for 2 to 6 months and between depths of 10 and 30 inches for 6 months or more each year. In dry seasons it is below a depth of 30 inches for short periods."

The remaining eleven soil types found on the Site each represents less than 12% of the total soil makeup. In general, the soil found on the Site is level, poorly drained sand that is formed by marine sediments. During the wet season, typically June through October, the water table is within a depth of ten inches of the ground surface. Site soils are illustrated in [Figure 6](#).

A geotechnical investigation of the Site, including 63 shallow soil borings, was prepared by TTL Associates, Inc. in August 2011. The soils encountered during this investigation included top soil to depths ranging from one to 18 inches bgs, with an average depth of 7 inches bgs. The topsoil was underlain by granular soils to the maximum explored depth of 8 feet bgs. The granular soils included poorly graded sand with varying amounts of silt and clay, silty sand, as well as clayey sand. The geotechnical investigation report also stated that limestone with sand was encountered within the upper three feet in ten of the 63 borings, particularly in the northern and southeastern portions of the Site, as well as in the western-central portion of the Site. Groundwater was encountered in all but three soil borings at depths generally ranging from 3 to 5 feet bgs; however, groundwater was encountered as shallow as 2.5 feet bgs in the eastern portion of the Site and as deep as 7 feet bgs in the western portion of the Site.

### **3.5.1 Prime and Unique Farmland Soils**

Prime and Unique Farmlands are regulated in accordance with the Farmland Protection Policy Act (FPPA) (7 USC 4201, *et seq.*) to ensure preservation of agricultural lands that are of statewide or local importance. Soils designated as prime farmland are capable of producing high yields of various crops when managed using modern farming methods. Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Unique farmlands are also capable of sustaining high crop yields and have special combinations of favorable soil and climate characteristics that support specific high-value foods or crops.

According to the USDA NRCS Web Soil Survey, the Mayakka sand, Bradenton fine sands, Copeland – Bradenton – Wabasso Complex, Riveria sand, Tavares fine sand, and Wabasso sand are characterized as farmland of unique importance (USDA NRCS 2012). These soils comprise approximately 293 acres or 92% of the overall Site. Site soils are illustrated in [Figure 6](#).

### **3.5.2 Effects of the No Action Alternative**

Under the No Action Alternative, no construction by VA would occur. No impacts to soils, topography, or geology would occur. Should the Site ultimately be developed for another use, impacts would result from that new development, and would depend upon the nature of the development.

### **3.5.3 Effects of the Proposed Action**

Acquisition of Preferred Action Alternative Site by VA would produce no direct geology or soils effects, as no changes to the geology or soils would occur. Future development of a new National Cemetery on the Site would produce geology and soils effects, as discussed below.

The geotechnical investigation indicated that the Site is located in an area where karst conditions are present, but relatively uncommon and minimal. In addition, no karst conditions were encountered in the soil borings completed at the Site.

Based on currently available data, no active significant faults are known to extend through the Site's subsurface geology. As such, no impacts associated with seismic hazards are identified. No significant impacts to mineral resources are anticipated, as the proposed cemetery would not involve the commercial extraction of mineral resources, nor affect mineral resources considered important on a local, State, national, or global basis.

Based on the results of the onsite geotechnical investigation, soils at the Site are suitable for the Proposed Action. However, significant changes to topography and drainage would be required to accommodate a future proposed cemetery development. Groundwater was encountered across the Site at depths generally ranging from 3 to 5 feet bgs with a reported high water table of approximately 10 inches bgs. A standard burial depth requires approximately 10 feet of soil above the water table; therefore, several feet of fill would be required to raise the grade of the Site in proposed burial areas.

In order to minimize the impacts of the high groundwater on the proposed use of the Site as a cemetery, VA would likely add fill to the burial areas from both on-site and off-site sources. Details regarding the grading of the Site and the volume of soil to be imported will be determined during the cemetery design. The proposed cemetery would be designed in concert with the natural topography and current drainage patterns. Paved areas would be designed to drain to a suitable, site-specific, and properly engineered and designed stormwater management system.

It is anticipated that VA would excavate portions of the Site not planned for grave sites, creating small open water bodies (ponds). This excavated soil would then be placed in the portions of the Site planned for grave sites. This approach would reduce the potential areas for grave sites, but if properly designed, could significantly enhance the aesthetics of the Site.

It is anticipated that on-site cutting and filling/land balancing activities, by itself, will not provide sufficient high ground for the needed grave sites for the cemetery. On-site fill would be supplemented with clean soil from nearby off-site mine and/or borrow pit sites. While mining an off-site location can have ecological and other environmental impacts, the FDEP, Bureau of Mining and Mineral Regulation licenses these facilities and requires that these impacts be mitigated both during mining and as part of a mine reclamation plan.

During construction of the proposed cemetery, *less-than-significant, direct and indirect, short-term adverse* soil erosion and sedimentation (E&S) impacts would be possible as the proposed buildings, parking areas, entrance road, grave sites, and other project components are constructed. Construction and grading activities would remove vegetative cover, disturb the soil surface, and compact the soil. The soil would then be susceptible to erosion by wind and surface runoff.

Exposure of the soils during construction has the potential to result in increased sedimentation in the onsite stormwater management systems, and the potential for offsite discharges of sediment-laden runoff. However, such potential adverse E&S effects would be prevented through utilization of appropriate BMPs and adherence to the terms of the FDEP National Pollution Discharge Elimination System (NPDES) General Permit for Construction Activity; and the Brevard County Code of Ordinances, Chapter 46 (Environment), Article V (Stormwater); Chapter 62 (Land Development Regulations), Article X (Environmental Protection and Conservations), Division 3 (Surface Water Protection), Division 6 (Stormwater Management Criteria); and Chapter 253 (Special Areas of Stormwater Concern). Permit standards would be adhered to during all construction activities.

Once construction is complete, no long-term E&S impacts would be anticipated due to the nature of the Proposed Action. No long-term soil erosion impacts would occur as a result of increased impervious surfaces onsite; these effects would be mitigated by including an appropriately designed stormwater system as part of final site design.

Approximately 92 percent of the Site contains soils that are characterized by USDA NRCS as farmland of unique importance; the Site also includes areas that are actively farmed (pasture land or cropland). The Proposed Action would irreversibly convert this farmland into nonagricultural use. As such, the Proposed Action is subject to the FPPA requirements. VA would be required to complete, in conjunction with the NRCS, a Farmland Conversion Impact

Rating (Form AD-1006) for the Preferred Action Alternative. This process evaluates the relative value of the Site as farmland compared to other farmland in the area (NRCS) and assesses the Site by examining the Site, surrounding areas, and the programs and policies of the State or local government agency (VA). The intent of this process is to consider alternative actions, as appropriate, that could lessen adverse effects on the protection of farmland. Based on the characteristics of the Site and surrounding area, the Preferred Action Alternative is anticipated to have a less-than-significant adverse impact on farmland soils.

The proposed cemetery development would be completed in accordance with Brevard County ordinances. By complying with these ordinances, and given that the proposed cemetery would be designed to blend with the existing landscape, no significant adverse geology or soils effects would be anticipated.

### 3.5.4 Mitigation/Management Measures

No project-specific mitigation measures are required.

To satisfy the requirements of FPPA, VA would complete Form AD-1006, Farmland Conversion Impact Rating, and submit the completed form to NRCS for their input and consultation.

Implementing BMPs to reduce E&S impacts during construction would further minimize the potential impacts on local soils and water quality. The construction contractor would develop, submit to the FDEP, and have approved, an NPDES permit for the Proposed Action. The NPDES permit would require stormwater runoff and erosion management using BMPs, earth berms, detention basins, vegetative buffers and filter strips, and spill prevention and management techniques. The construction contractor would implement the following as appropriate and necessary to protect surface water quality, as part of NPDES permit:

- Install and monitor erosion-prevention measures (BMPs), such as silt fences and water breaks, detention basins, filter fences, sediment berms, interceptor ditches, straw bales, rip-rap, and/or other sediment control structures; re-spread stockpiled topsoil; and seed/re-vegetate areas temporarily cleared of vegetation.
- Retain on-site vegetation to the maximum extent possible.
- Plant and maintain soil-stabilizing vegetation on disturbed areas.
- Use native vegetation to re-vegetate disturbed soils.

The construction contractor would obtain all required permits before any proposed construction activities commence and would adhere to permit conditions during all onsite construction activities.

If measures in the NPDES permit are approved and correctly utilized for site development, direct soil erosion and resulting indirect sedimentation impacts would be minimized to *less-than-significant* levels. Successful implementation of these measures would ensure that the Proposed Action is in compliance with State and Federal water quality standards and minimizes both the short- and long-term potential for erosion and sedimentation.

Implementation of these measures would maintain identified impacts at *less-than-significant* levels by properly controlling and limiting soil erosion and sedimentation impacts.



Brevard County, Florida (FL009)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Ancote sand, depressional	0.5	0.2%
8	Bradenton fine sand, limestone substratum	44.8	14.6%
16	Copeland-Bradenton-Wabasso complex, limestone substratum	37.5	12.2%
19	Riviera sand	35.0	11.4%
22	Floridana sand, depressional	0.4	0.1%
36	Myakka sand	131.9	42.9%
41	Orsino fine sand	0.7	0.2%
49	Pomello sand	5.5	1.8%
51	Pompano sand	11.2	3.6%
55	St. Johns sand, depressional	0.1	0.0%
63	Tavares fine sand	0.3	0.1%
71	Wabasso sand	31.8	10.4%
91	Ancote sand	7.3	2.4%
<b>Totals for Area of Interest</b>		<b>307.1</b>	<b>100.0%</b>

<b>FIGURE 6 – USDA NRCS SOIL SURVEY MAP OF SITE</b>  <b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b> <b>PROPOSED NATIONAL CEMETERY BREVARD COUNTY, FLORIDA</b>	<b>PREPARED FOR VA</b>	
	<b>WBC PROJECT 2961-351-01-01</b>  <b>JULY 2012</b>	

## 3.6 Hydrology and Water Quality

### 3.6.1 Surface Waters

Information provided by the USFWS Online Wetland Mapper indicates that the Site includes three areas of mapped wetlands, including one small open water system in the west-central portion; a forested wetland complex in the eastern portion; and an emergent wetland complex in the eastern portion. In addition, the Oak Hill and Mims, Florida USGS Topographic Quadrangles, and the FEMA Flood Insurance Rate Map (FIRM) for the Site indicate that a portion of Big Flounder Creek crosses the central portion of the Site from north to south, runs along the southern boundary of the eastern portion of the Site and discharges into the Indian River. The topographic maps and FIRM also indicate that there are up to four additional man-made drainage channels in the north-central portion of the Site and eight to ten man-made drainage channels in the eastern portion of the Site. All of the man-made drainage channels at the Site appear to be surficially connected to Big Flounder Creek.

A field review of the Site identified one natural drainage channel in the central portion of the Site (Big Flounder Creek) and eight to ten man-made drainage channels throughout the Site. Although the majority of these channels are only seasonally active, the channels are hydraulically connected to one another and ultimately discharge into Big Flounder Creek; which discharges into the Indian River approximately 1,500 feet southeast of the Site. Additional details pertaining to wetlands is included in Section 3.10. The location of the surface water-related features are identified on [Figure 7](#).

In October 2000, the USEPA authorized the FDEP to implement the NPDES stormwater permitting program in the State of Florida (i.e., in all areas except Indian Country lands). FDEP's authority to administer the NPDES program is set forth in Section 403.0885, Florida Statutes (F.S.). The NPDES stormwater program regulates point source discharges of stormwater into surface waters of the State of Florida from certain municipal, industrial, and construction activities. As the NPDES stormwater permitting authority, FDEP is responsible for promulgating rules and issuing permits, managing and reviewing permit applications, and performing compliance and enforcement activities. The NPDES stormwater permitting program is separate from the State's stormwater/environmental resource permitting programs (found under Part IV, Chapter 373, F.S. and Chapter 62-25, F.A.C.) and local stormwater/water quality programs, which have their own regulations and permitting requirements (FDEP 2011).

A stormwater management review by the St. Johns River Water Management District (SJRWMD) would be required as part of any proposed onsite development activities (FDEP 2011). In addition, an Environmental Resources Permit (ERP) from the SJRWMD would be required to manage stormwater discharges associated with the future proposed cemetery development. The ERP supersedes any NPDES permits; however, documentation of the ERP is required to be provided to the lead NPDES agency (SJRWMD 2011).

Brevard County maintains stormwater management ordinances via Brevard County Code of Ordinances, Chapter 46 (Environment), Article V (Stormwater); Chapter 62 (Land Development Regulations), Article X (Environmental Protection and Conservations), Division 6 (Stormwater Management Criteria); and Chapter 253 (Special Areas of Stormwater Concern). Permit standards would need to be adhered to during all future construction activities.

In addition, Brevard County maintains a wetland protection ordinance via the Brevard County Code of Ordinances, Chapter 62 (LDR), Article X (Environmental Protection and Conservation, Division 4 (Wetland Protection).

### 3.6.2 Groundwater

According to the Groundwater Atlas of the United States, the Site is underlain by a surficial aquifer system. The surficial aquifer system consists mostly of beds of unconsolidated sand,

shelly sand, and shell and the rocks that comprise the surficial aquifer system range from late Miocene to Holocene in age. The thickness of the surficial aquifer system is typically less than 50 feet, but its thickness in Florida is as much as 400 feet in Indian River and St. Lucie Counties and generally thickens coastward.

According to NCRS information, during the wet season (June through October), the water table may be within a depth of ten inches of the ground surface at the Site. However, a geotechnical investigation performed at the Site in August 2011 indicated that groundwater generally exists at depths ranging from 3 to 5 feet bgs, and could be as deep as 7 feet bgs in the western portion of the Site and as shallow as 2.5 feet bgs in the eastern portion of the Site. Based on the eastward topographic slope of the Site (29 feet amsl in the western portion sloping down to the east to 5 feet amsl in the eastern portion), it would be expected that depth to groundwater would gradually decrease from west to east across the Site.

A Phase I ESA was conducted for the Site (Weaver Boos July 2011) and identified the presence of ethylene dibromide (EDB), a soil fumigant, in nine separate drinking water wells in the vicinity of the Site in excess of the applicable cleanup criteria (based on the use of groundwater for drinking water). EDB was used as a fumigant to protect against insects, pests, and nematodes in citrus, vegetable, and grain crops, and as a fumigant for turf, particularly on golf courses. In 1984, EPA banned its use as a soil and grain fumigant. Although no documentation of EDB in groundwater on the Site has been identified based on its prevalence in the area, Weaver Boos stated that groundwater at the Site has likely been impacted with EDB. However, municipal water is provided to the Site vicinity and no additional investigations were recommended.

Brevard County protects groundwater via the Brevard Code of Ordinances, Chapter 62 (Land Development Regulations or LDR), Article X (Environmental Protection and Conservation), Division 2 (Aquifer Protection).

### **3.6.3 Effects of the No Action Alternative**

Under the No Action Alternative, no construction by VA would occur. No impacts to hydrology or water quality by VA would occur. Should the Site ultimately be developed for another use, impacts would result from that new development, and would depend upon the nature of the development.

### **3.6.4 Effects of the Preferred Action Alternative**

Acquisition of the Preferred Action Alternative Site by VA would produce no direct hydrology or water quality effects. Future development of a new National Cemetery on the Site would produce hydrology and water quality effects, as discussed below.

Construction of a new cemetery at the Site has the potential to result in impacts to surface waters (i.e., wetlands and Waters of the U.S.) at and near the Site. However, it is fully anticipated that through environmentally sensitive site design, good engineering practices, and consultation with authorized Federal, State, and local agencies, these potential impacts would be avoided or mitigated to less-than-significant levels. Surface waters would be avoided wherever possible.

In addition, VA would implement the BMPs described in Section 3.5.4 and 3.6.5. These BMPs would control future construction-related impacts of soil erosion and sedimentation, and would provide a proper onsite stormwater management system.

All surface waters (i.e., wetlands and Waters of the U.S.) at the Site would likely be under the jurisdiction of the USACE (Section 404) due to their connection to "Waters of the US" or the FDEP and SJRWMD for those surface waters determined not to be "Waters of the US" (isolated wetlands). The ERP that would be completed during the cemetery design process would

include any needed water quality certification (WQC) under Section 401 of the Clean Water Act and Coastal Zone Consistency Concurrence with Florida's federally approved Coastal Zone Management program under Section 307 of the Coastal Zone Management Act. Any activity within or that may impact the "Waters of the US" and jurisdictional wetlands would require a permit from the appropriate State or Federal agency(ies).

It is not anticipated that groundwater would be impacted by the Preferred Action Alternative; groundwater is present at depths ranging from 3 to 5 feet bgs, and could be as deep as 7 feet bgs in the western portion of the Site and as shallow as 2.5 feet bgs in the eastern portion of the Site. To avoid interaction with groundwater, the grade of the Site would be raised in grave site areas through on-site earthwork balancing and the import of off-site fill. It is anticipated the land balancing would result in the creation of on-site ponds. However, deep excavation, significantly below the water table, is not anticipated; therefore, no dewatering is likely. If limited areas of deeper excavation are required, appropriate groundwater engineering controls would be utilized during construction to ensure no long-term adverse effects to groundwater. As such, impacts to groundwater are anticipated to be *less-than-significant*.

Based on standard modern burial practices, it is unlikely that embalming fluid would be released into the soil and/or groundwater. The potential for modern embalming fluid to contaminate soil and/or groundwater has not been studied thoroughly, though it is unlikely that contamination would occur because embalming fluid quickly breaks down into an inert substance in soil (The Association of Natural Burials 2011).

EDB contaminated groundwater may exist beneath the Site. No significant dewatering is anticipated during construction activities that would exacerbate the existing groundwater impacts. Irrigation plans for the constructed cemetery will be determined during the design phase and may include the use of an on-site water well. If groundwater is used for irrigation, VA would implement controls to prevent the spread of impacted groundwater to previously unimpacted areas and prevent impacts to surface water. This will be further evaluated in the SEA, as appropriate.

### 3.6.5 Mitigation/Management Measures

No project-specific mitigation measures are required.

VA would implement the following avoidance and management measures to reduce potential adverse effects to wetlands and Waters of the US to acceptable, less-than-significant levels. These measures will be more fully developed as part of the subsequent, site-specific, tiered EA, concurrent with site design efforts. It is anticipated that onsite, surface water features (i.e. wetlands and/or Waters of the U.S.) would be avoided through sensitive design. VA would:

**Wetlands and Waters of the US.** Avoid onsite surface water resources to the extent possible during the site design process. Consult with, and obtain the necessary permit(s) from, the USACE under Section 404 of the Clean Water Act and applicable State agencies (FDEP and SJRWMD) to minimize adverse effects to jurisdictional surface water resources prior to construction. VA anticipates that final cemetery design will maintain a buffer of undisturbed land around the majority of identified surface water resources. However, in those cases where impacts to wetlands and Water of the US cannot be avoided (e.g., at stream crossings), VA will obtain and comply with all necessary permits from State (FDEP and SJRWMD) and Federal (USACE) agencies.

VA would implement the above measures to ensure adverse effects would be minimized and maintained at acceptable, less-than-significant levels.

Future proposed cemetery development of the Site would be required to comply with the following State and local (Brevard County) review and approval processes that would review

future proposed development plans and potential for effects to surface water and groundwater conditions:

VA would complete a stormwater management review by the SJRWMD, as required as part of any proposed onsite development activities (FDEP 2011). In addition, an ERP from the SJRWMD would be required to manage stormwater discharges associated with the future proposed cemetery development. The ERP supersedes any NPDES permits; however, documentation of the ERP is required to be provided to the lead NPDES agency (SJRWMD 2011).

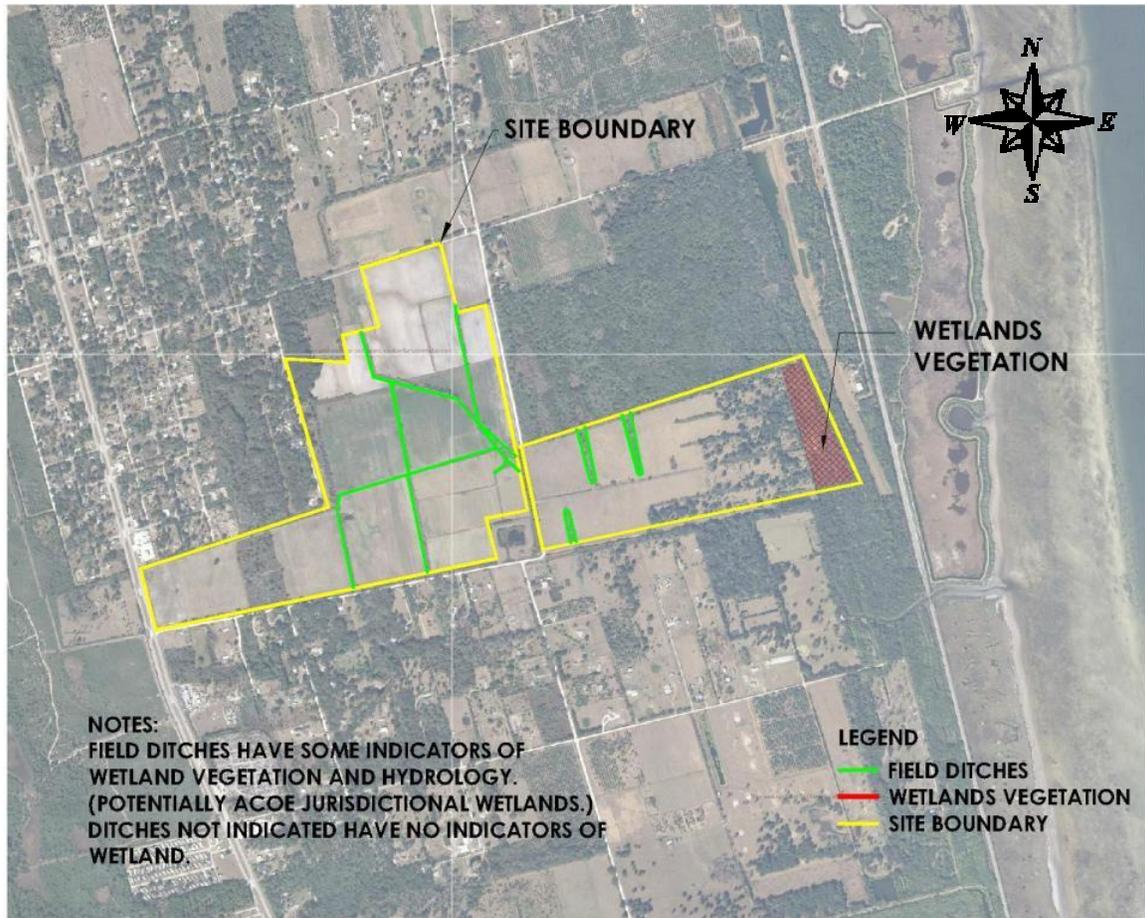
- VA would comply with the following Brevard County Code of Ordinances for surface water: Chapter 46 (Environment), Article V (Stormwater); Chapter 62 (Land Development Regulations), Article X (Environmental Protection and Conservations), Division 3 (Surface Water Protection), Division 6 (Stormwater Management Criteria); and Chapter 253 (Special Areas of Stormwater Concern). Permit standards would be adhered to during all construction activities.
- VA would comply with the following Brevard County Code of Ordinances for wetlands: Chapter 62 (Land Development Regulations), Article X (Environmental Protection and Conservations), Division 4 (Wetland Protection). Permit standards would be adhered to during all construction activities.
- VA would comply with the following Brevard County Code of Ordinances for groundwater: Chapter 62 (Land Development Regulations), Article X (Environmental Protection and Conservations), Division 2 (Aquifer Protection). Permit standards would be adhered to during all construction activities.

Compliance with these processes, as well as the above surface water avoidance measures, would ensure that future water resources effects are maintained at acceptable levels.

In addition, to minimize potential adverse impacts to the Site area, VA would implement the following BMPs:

- VA shall ensure, as part of the NPDES permitting process, the site design includes sufficient, properly engineered stormwater management infrastructure so as to not adversely affect the flood elevations or water quantity/quality in receiving waters and/or offsite areas. Post-project hydrology shall replicate pre-project hydrology through the appropriate engineering design and implementation of a proposed stormwater management system located at the Site, working closely with the FDEP and SJRWMD.
- Develop a site design that prevents surface water runoff to the onsite and adjacent surface waters, and avoids interaction with onsite and adjacent surface waters.
- VA shall implement the soil erosion and sedimentation methodologies as described in Section 3.5.4.

Implementation of these BMPs would ensure identified water resources impacts are maintained as less-than-significant levels.



<p><b>FIGURE 7 – SURFACE WATERS MAP OF SITE</b></p> <p><b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b></p> <p><b>PROPOSED NATIONAL CEMETERY BREVARD COUNTY, FLORIDA</b></p>	<p><b>PREPARED FOR VA</b></p>	
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### 3.7 Wildlife and Habitat

#### 3.7.1 Vegetation and Wildlife

Little of the original natural vegetation communities, comprised of wooded land, are present on the Site, including approximately 8.7 acres (2.7%) in the western portion of the Site, approximately 50 acres (15.7%) in the eastern portion of the Site, and approximately 15 acres (5%) of scattered tree lines associated with fence rows and drainage channels across the Site. The majority of the Site is occupied by unimproved farmland (76.6%), comprised of pasture land and crop land. The lands immediately adjacent to Site are generally unimproved farmland or wooded land and/or residences, with limited commercial properties along Highway 1, adjoining to the west of the Site. On-site vegetation is typical of disturbed, unimproved agricultural areas in the vicinity of the Site. Such vegetation communities support wildlife species associated with rural areas in Florida.

Based on field reviews by a qualified biologist, five ecological communities were identified within the Site boundaries, as follows (See [Figure 8](#) – Ecological Communities Map):

- Pasture (approximately 55% of the Property).
- Woodland Pasture (approximately 20% of the Property).
- Field Crops (approximately 20% of the Property).
- Mixed Scrub-Shrub Wetlands (approximately 5% of the Property).

These ecological communities are described as cover types below in more detail using a Florida Land Use, Cover and Forms Classification System (FLUCFCS) mapping system. This map was developed from the Florida Department of Transportation FLUCFCS Handbook, which uses standard FLUCFCS codes that are specific to Brevard County conditions. These cover types include wetlands and uplands.

Approximately 55 percent of the Site is best classified as pastures. The dominant species is Bahia Grass (*Paspalum notatum*), Caesar-weed, scattered Saw Palmetto (*Serenoa repens*), Dog Fennel (*Eupatorium capillifolium*) and Yellow-leafed Aster. This community is productive for wildlife species such as wild hogs, hawks, many songbirds, and potentially, the State listed species Gopher tortoise.

Approximately 20 percent of the Site is Woodland pastures. The predominate canopy species are Live oak (*Quercus virginiana*) with scattered Laurel Oak (*Quercus hemisphaerica*), Cabbage Palm (*Sabal palmetto*), Florida Cedar (*Juniperus silicicola*) and Slash Pine (*Pinus elliotii*). Understory vegetation includes American Beautyberry (*Callicarpa americana*), Caesar-weed (*Urena lobata*), Paw-paw (*Asimina reticulata*), and Southern Fox Grape (*Vitis munsoniana*). A few patches of Tropical Soda Apple (*Solanum viarum*), a highly invasive exotic species, were observed. This community likely provides habitat for species such as wild hogs, deer, turkey, woodpeckers, owls and hawks.

Approximately 20 percent of the Site is field crops. The fields appeared to be formerly utilized for watermelon production. This area has low productivity for wildlife as it is managed for crop production.

Approximately five percent of the Site is covered with vegetation that would be classified as a mixed scrub-shrub wetland. The area of wetlands vegetation on the Site is further classified as a Cabbage Palm Hammock. This system is a well-developed hardwood and cabbage palm community with a variable understory and is located at the extreme eastern end of the Site. This is a productive community for many wildlife species.

This community generally contains a canopy coverage of Cabbage Palm (*Sabal palmetto*), Florida Cedar (*Juniperus silicicola*) and Slash Pine (*Pinus elliotii*). The sub-canopy vegetation includes Wax Myrtle (*Myrica cerifera*), Myrsine (*Rapanea guinensis*), Black Haw Viburnum (*Viburnum obovatum*), and Yaupon Holly (*Ilex vomitoria*). The groundcover contains species such as Royal Fern (*Osmunda regalis*), Virginia Creeper (*Parthenocissus quinquefolia*), Chain Fern (*Woodwardia virginica*), and Poison Ivy (*Toxicodendron radicans*). This community likely provides habitat for species such as wild hogs, deer, turkey, woodpeckers, owls and hawks.

### 3.7.2 Threatened and Endangered Species

As part of the preparation of this PEA, the USFWS, FDEP, Florida Wildlife Commission (FWC), Florida Fish and Wildlife Conservation Commission (FFWCC), and FNAI were contacted to identify any potential for presence of State or Federally listed threatened or endangered species on or in the vicinity of the Site. The following provides a summary of the information provided by these agencies (please see Appendix A for these agencies' complete responses):

**USFWS** stated that the Site may include habitat for a number of threatened or endangered species. USFWS recommends that a wildlife survey be conducted on the Site.

**FFWCC** stated a number of listed species have the potential to occur on or near the Site, including the following: Gopher tortoise, Florida pine snake, American alligator, Florida scrub-jay, Sherman's fox squirrel, and Florida black bear. FFWCC recommend that a species-specific wildlife survey be conducted on the Site. Furthermore, FFWCC recommends the applicant coordinate with the USFWS regarding those federally listed species that may occur on Site.

**FNAI** states that according to their data federally listed species are present on or very near the Site. FNAI also indicate that there are potential scrub-jay populations on or very near the Site. FNAI's report also stated that portions of the Site appear to intersect the Merritt Island National Wildlife Refuge which is managed by the USFWS. The Site also appears to intersect the Indian River Lagoon Blueway Florida Forever BOT Project, which is part of the State of Florida's Conservation and Recreation Lands land acquisition program. The FNAI goes on to recommend that professionals familiar with Florida's flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Although the Site has been mostly disturbed associated with its agricultural use, it still maintains areas of the original habitat in the western and eastern portions; therefore, habitat values on the Site range from low in disturbed areas to moderate in undisturbed areas.

A review of information available from the USFWS, FNAI, and FFWCC identified several Federal and/or State threatened and/or endangered species for Brevard County. These species included plants, reptiles, amphibians, mammals, and birds. Species listed for Brevard County are provided in Appendix A.

Based on the habitats observed at the Site compared to the habitat requirements for the State and Federal listed species, the most likely listed species that would be found at the Site are Bald Eagle (*Haliaeetus leucocephalus*) and Gopher Tortoise (*Gopherus polyphemus*). A search of the FWC database has verified that no known Bald eagle nests occur within 0.5 miles of the Site.

As part of the site investigation, a qualified biologist traversed the Site and attempted to visually identify the State and Federal-listed species of flora and fauna. Gopher Tortoise habitat and burrows were identified on the western portion of the Site. Other than Gopher Tortoise, no other listed species were visually identified.

One active and two inactive Gopher Tortoise burrows were identified in the western portion of the Site (see [Figure 9](#)). According to information published by FWC, Gopher Tortoises are

long-lived reptiles that occupy upland habitat throughout Florida including forests, pastures, and yards. They dig deep burrows for shelter and forage on low-growing plants. Gopher Tortoises share these burrows with more than 350 other species, and are therefore referred to as a keystone species.

The Gopher Tortoise is a Florida-protected threatened species. In addition, due to its status as a "keystone species", both the tortoise and its burrow are protected under Florida state law. The Gopher Tortoise is not a Federally-protected species. No other specific listed species habitat was located during the site investigation.

Brevard County conserves wildlife and habitat through the Brevard County Code of Ordinances, Chapter 62 (LDR), Article XIII (Landscaping, Tree Protection, Land Clearing, and Land Alteration).

### 3.7.3 Effects of the No Action Alternative

Under the No Action Alternative, no construction by VA would occur. No impacts to vegetation or wildlife habitat would occur other than through the ongoing agricultural use of the Site. Should the Site ultimately be developed for another use, impacts would result from that new development, and would depend upon the nature of the development.

### 3.7.4 Effects of the Preferred Action Alternative

Acquisition of the Preferred Action Alternative Site by VA would produce no direct wildlife and habitat effects. Future development of a new National Cemetery on the Site would produce biological resources effects, as discussed below.

The Preferred Action Alternative has the potential to result in *significant impacts* on biological resources. One active and two inactive Gopher Tortoise burrows were identified in the western portion of the Site. However, it is fully anticipated that through environmentally sensitive site design, including maintaining a buffer of undeveloped land around the Gopher Tortoise burrows and habitat, these potential impacts will be avoided or mitigated to less-than-significant levels.

### 3.7.5 Mitigation/Management Measures

No project-specific mitigation measures are required.

VA will implement the following avoidance and management measures to reduce potential adverse effects to protected wildlife and habitat to acceptable, less-than-significant levels. These measures will be more fully developed as part of the subsequent, site-specific, tiered EA, concurrent with site design efforts. It is anticipated that onsite, protected wildlife and habitat resources would be avoided through sensitive design. VA would:

**Wildlife and Habitat.** Avoid onsite protected vegetation and wildlife resources to the extent possible during the site design process.

Consult with the USFWS, FNAI, and FFWCC to minimize adverse effects to protected vegetation and wildlife resources prior to construction.

VA anticipates that final cemetery design would maintain a buffer of undisturbed land around the majority of identified protected vegetation and wildlife resources. However, in those cases where impacts to protected vegetation and wildlife resources cannot be avoided, VA would consult and comply with Federal (USFWS), State (FNAI), and local (Brevard County) agencies.

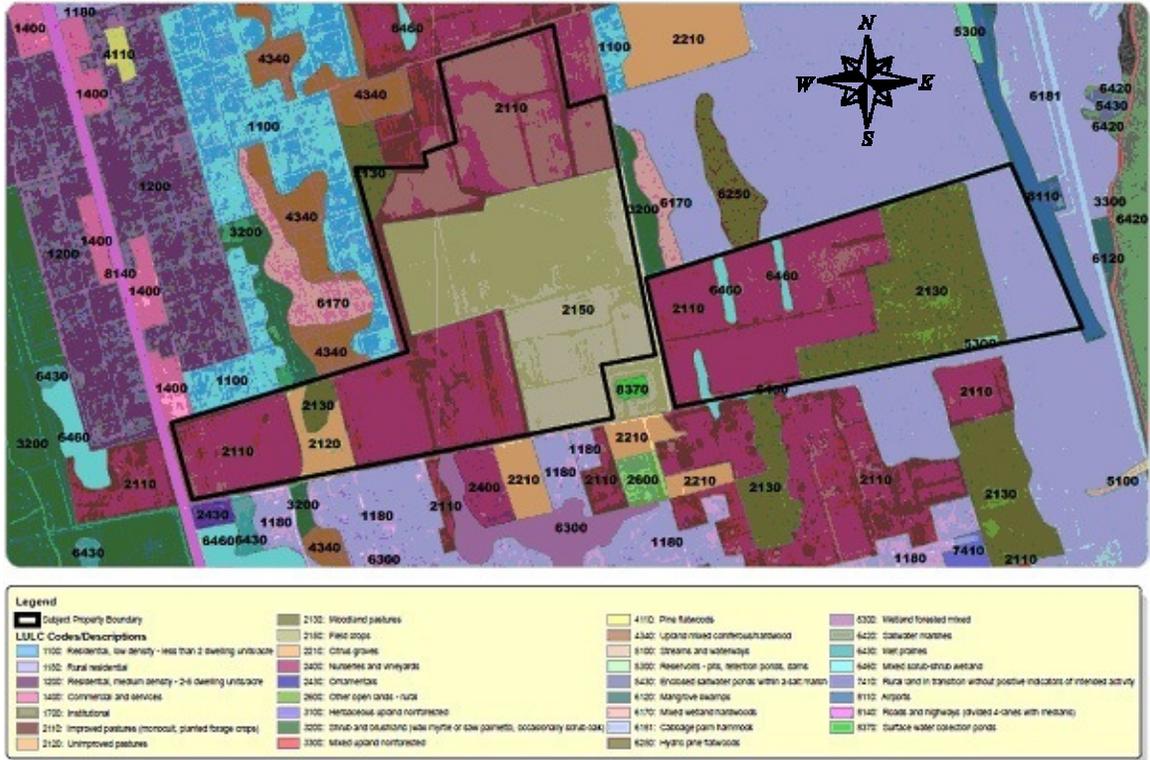
VA would implement the above measures to ensure adverse effects would be minimized and maintained at acceptable, less-than-significant levels.

In addition, VA would implement the following BMPs to reduce biological resources impacts during construction and operation:

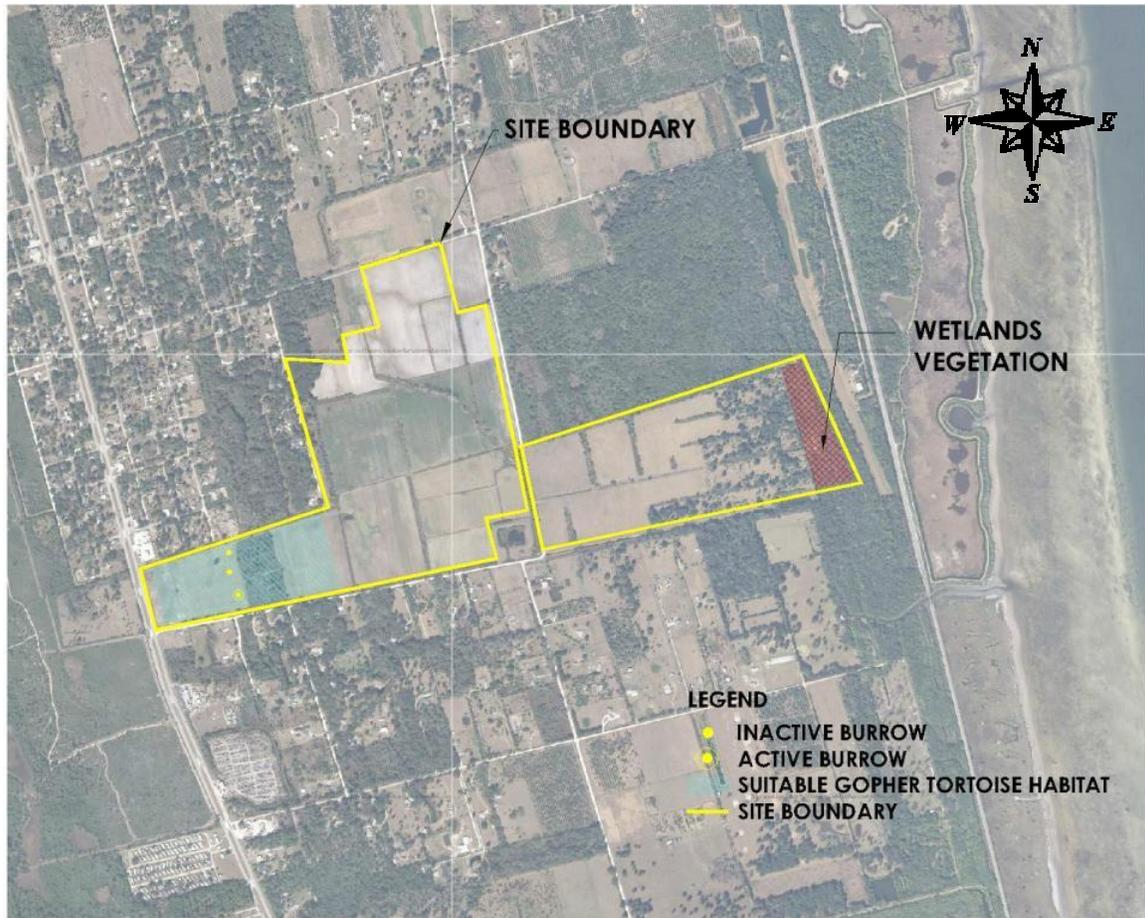
Construction should be timed to avoid overwintering periods (November through March) of migratory birds on the Site and protected under the Migratory Bird Treaty Act. This Act prohibits the taking of migratory birds, their nests, and eggs. If it is not practical to clear the Site outside of this time frame, a qualified biologist should survey the Site prior to tree and brush clearing to ensure that no overwintering birds are disturbed.

- Native species should be used to the extent practicable when re-vegetating land disturbed by construction to avoid the potential introduction of non-native or invasive species.
- VA would comply with the Brevard County Code of Ordinances, Chapter 62 (LDR), Article X (Environmental Protection and Conservation) and Article XIII (Landscaping, Tree Protection, Land Clearing, and Land Alteration).

Implementation of these BMPs would serve to further reduce less-than-significant biological resources impacts.



<p><b>FIGURE 8 – ECOLOGICAL COMMUNITIES MAP OF SITE</b></p> <p><b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b></p> <p><b>PROPOSED NATIONAL CEMETERY BREVARD COUNTY, FLORIDA</b></p>	<p><b>PREPARED FOR VA</b></p>	
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<b>FIGURE 9 – GOPHER TORTOISE HABITAT MAP OF SITE</b>  <b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b>  <b>PROPOSED NATIONAL CEMETERY BREVARD COUNTY, FLORIDA</b>	<b>PREPARED FOR VA</b>	
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### 3.8 Noise

The existing noise environment around the Preferred Action Alternative Site is dominated by vehicle traffic along adjoining roadways, specifically Highway 1 adjoining to the west of the Site. In addition, a small private airport (Tradewinds Aerodrome Airport) is located adjacent to the east of the Site, beyond which are Florida East Coast Railroad tracks. No other notable noise-generating sources are present in the immediate vicinity of the Site. As such, the Site's noise environment can be characterized as that typical of a rural area.

Brevard County maintains a Noise Ordinance under the Brevard County Code of Ordinances, Chapter 46, Article IV (Noise).

#### 3.8.1 Effects of the No Action Alternative

Under the No Action Alternative, the noise environment surrounding the Site would not change. No significant adverse noise impacts presently occur at the Site. The noise environment of the Site would not be altered by activities of VA; however, the likely ultimate development of the Site by others would produce similar construction and operation noise impacts as identified under the Proposed Action.

#### 3.8.2 Effects of the Preferred Action Alternative

Acquisition of the Preferred Action Alternative Site by VA would produce no direct noise effects. Future development of a new National Cemetery on the Site would produce noise effects, as discussed below. VA would comply with the Brevard County Noise Ordinance.

Based on the proposed use of the Site as a cemetery, no long-term noise impacts would be anticipated. Noise generated from the Proposed Action would have short-term impacts to the existing noise environment due to construction activities onsite. Noise generating sources during construction activities would be associated primarily with standard construction equipment and construction equipment transportation. These increased noise levels could directly affect the neighboring area, including the residential properties located adjacent the Site.

Construction activities generate noise by their very nature and are highly variable, depending on the type, number, and operating schedules of equipment. Construction projects are usually executed in stages, each having its own combination of equipment and noise characteristics and magnitudes. Construction activities are expected to be typical of other similar construction projects and would include mobilization, site preparation, excavation, placing foundations, utility development, heavy equipment movement, and paving roadways and parking areas.

The most prevalent noise source at typical construction sites is the internal combustion engine. General construction equipment using engines includes, but is not limited to: heavy, medium, and light equipment such as excavators; roller compactors; front-end loaders; bulldozers; graders; backhoes; dump trucks; water trucks; concrete trucks; pump trucks; utility trucks; cranes; sheet pile drivers; man lifts; forklifts; and lube, oil, and fuel trucks.

Peak noise levels vary at a given location based on line of sight, topography, vegetation, and atmospheric conditions. In addition, peak noise levels would be variable and intermittent because each piece of equipment would only be operated when needed. However, peak construction noise levels would be considerably higher than existing noise levels. Relatively high peak noise levels in the range of 93 to 108 dBA (decibels, A-weighted scale) would occur on the active construction site, decreasing with distance from the construction areas. Table 2 presents peak noise levels that could be expected from a range of construction equipment during proposed construction activities.

Generally speaking, peak noise levels within 50 feet of active construction areas and material transportation routes would most likely be considered "striking" or "very loud", comparable to peak crowd noise at an indoor sports arena. At approximately 200 feet, peak noise levels would be loud - approximately comparable to a garbage disposal or vacuum cleaner at 10 feet. At 0.25 mile, construction noise levels would generally be quiet enough so as to be considered insignificant, although transient noise levels may be noticeable at times.

Combined peak noise levels, or worst-case noise levels when several loud pieces of equipment are used in a small area at the same time as described in Table 2, are expected to occur rarely, if ever, during the project. However, under these circumstances, peak noise levels could exceed 90 dBA within 200 feet of the construction area, depending on equipment being used.

**Table 2. Peak Noise Levels Expected from Typical Construction Equipment**

Source	Peak Noise Level (dBA, attenuated)							
	Distance from Source (feet)							
	0	50	100	200	400	1,000	1,700	2,500
Heavy Truck	95	84-89	78-93	72-77	66-71	58-63	54-59	50-55
Dump Truck	108	88	82	76	70	62	58	54
Concrete Mixer	108	85	79	73	67	59	55	51
Jack-hammer	108	88	82	76	70	62	58	54
Scraper	93	80-89	74-82	68-77	60-71	54-63	50-59	46-55
Bulldozer	107	87-102	81-96	75-90	69-84	61-76	57-72	53-68
Generator	96	76	70	64	58	50	46	42
Crane	104	75-88	69-82	63-76	55-70	49-62	45-48	41-54
Loader	104	73-86	67-80	61-74	55-68	47-60	43-56	39-52
Grader	108	88-91	82-85	76-79	70-73	62-65	58-61	54-57
Pile driver	105	95	89	83	77	69	65	61
Forklift	100	95	89	83	77	69	65	61
Worst-Case Combined Peak Noise Level (Bulldozer, Jackhammer, Scraper)								
Combined Peak Noise Level	Distance from Source (feet)							
	50	100	200	¼ Mile	½ Mile			
	103	97	91	74	68			

Source: Tipler 1976

Although noise levels would be quite loud in the immediate area, the intermittent nature of peak construction noise levels would not create the steady noise level conditions for an extended duration that could lead to hearing damage. Construction workers would follow standard Federal Occupational Safety and Health Administration (OSHA) requirements to prevent hearing damage.

Areas that could be most affected by noise from construction include those closest to the construction footprint, including the limited residential areas around the Site. Specifically, residential areas on the north side of the west end of the site would be the most likely to be affected. However, the majority of the site area is more than 200 feet from any residence; as such, noise levels from construction activities should have minimal affect. In addition, indoor noise levels would be expected to be 15-25 decibels lower than outdoor levels.

Indirect impacts include noise from workers commuting and material transport. Area traffic volumes and noise levels would increase slightly as construction employees commute to and from work at the project area, and delivery and service vehicles (including trucks of various sizes) transit to and from the Site. Because trucks are present during most phases of construction and leave and enter the Site via local thoroughfares, truck noises tend to impact more people over a wider area. For this Proposed Action, persons in the residential areas near

the Site would experience temporary increases in traffic noise during day-time hours. These effects are not considered significant because they would be temporary and similar to existing traffic noise levels in the area.

Proposed operational activities at the national cemetery would include vehicle traffic to and from the Site, and use of powered equipment for grave site preparation, maintenance, and upkeep. These activities would not produce excessive noise, and would not produce a significant adverse noise impact on surrounding land uses. The facility would be a relatively quiet cemetery.

### **3.8.3 Mitigation/Management Measures**

No project-specific mitigation measures are required.

Implementing BMPs to reduce noise generated during construction would further minimize the potential impacts on the local noise environment. To minimize the potential for adverse, short-term noise impacts, the construction contractor would implement the following typical noise control BMPs, as applicable. These measures would be briefed to the contractor at the construction kick-off meeting, and daily at tailgate safety meetings. The onsite construction manager would be responsible to immediately address noise issues, if they arise.

- Comply with the Brevard County Noise Ordinance.
- Do not conduct construction activities between the hours of 10:00 p.m. and 7:00 a.m.
- Coordinate proposed construction activities in advance with adjacent sensitive receptors. Let the local residents know what operations would be occurring at what times, including when they would start and when they would finish each day. Post signage, updated daily, at the entry points of the Site providing current construction information, including schedule and activity.
- Limit, to the extent possible, construction and associated heavy truck traffic to occur between 7:00 a.m. and 10:00 p.m. on Monday through Friday, or during normal, weekday, work hours. This measure would reduce noise impacts during sensitive night-time hours.
- Locate stationary equipment as far away from sensitive receptors as possible.
- Select material transportation routes as far away from sensitive receptors as possible.
- Shut down noise-generating heavy equipment when it is not needed.
- Maintain noisy equipment per manufacturer's recommendations.
- Encourage construction personnel to operate equipment in the quietest manner practicable (e.g., speed restrictions, retarder brake restrictions, engine speed restrictions, etc.).

Implementation of these BMPs would reduce the potential for short-term adverse noise impacts to acceptable levels, notably for nearby sensitive receptors (i.e., the residential areas near the Site).

### 3.9 Land Use

Based on a review of historical resource utilized as part of a Phase I Environmental Site Assessment (ESA) prepared by Weaver Boos and dated August 2011, the Site has been unimproved pasture land, crop land, and wooded land since at least 1943.

The Site is currently zoned Agricultural Residential (AU) with a future land use designation of Residential 1 (one dwelling unit per acre). The surrounding property owners include residential homeowners, public entities, and private businesses. The properties to the north and south are zoned residential (one dwelling unit per acre), to the west is Community Commercial and agricultural-zoned properties, and a property zoned Public Conservation is located to the east. The current zoning classifications of the Site and the surrounding uses are depicted in [Figure 10](#).

The adjacent area located to the north is currently undeveloped wooded land, unimproved farmland, scattered commercial properties (along Highway 1), and a residential neighborhood. The adjacent area located to the east is currently a small, private airport and Florida East Coast Railroad tracks, beyond which is the Indian River. The adjacent area located to the south is currently undeveloped land, unimproved farmland, and scattered residential and commercial properties (along Highway 1). The adjacent area located to the west is currently undeveloped land, scattered commercial properties (along Highway 1), and residential properties.

While VA is not subject to local zoning regulations, the proposed cemetery is compatible with the existing zoning and future land use regulations. The proposed cemetery is permitted within residential land use designations, with conditions under the institutional low intensity classification.

#### 3.9.1 Effects of the No Action Alternative

Under the No Action Alternative, no land use impacts due to VA's Proposed Action would occur. The Site would likely be developed by their current owners in accordance with local zoning regulations. The land use impacts (and associated community benefits) of any future proposed development would be dependent upon the use proposed.

#### 3.9.2 Effects of the Preferred Action Alternative

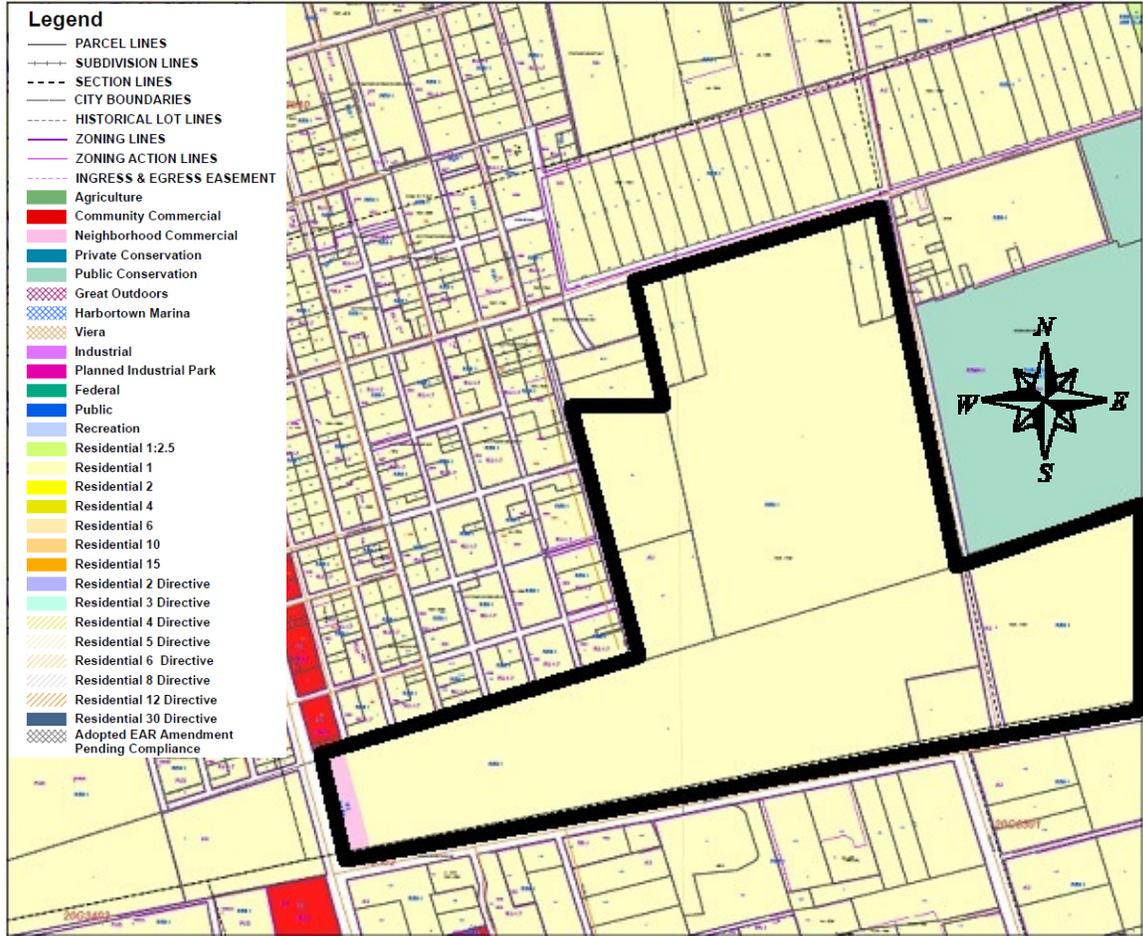
Acquisition of the Preferred Action Alternative Site by VA would produce no direct land use effects. Future development of a new National Cemetery on the Site would have generally positive land use effects, as discussed below.

The Proposed Action would generally result in *long-term, direct, positive land use effects* within the Brevard County area by preserving open space and developing the Site in accordance with local requirements. The Proposed Action would be consistent with local zoning, and would develop the Site in consonance with local plans. In addition, adverse onsite building function and architecture impacts are not anticipated. The proposed National Cemetery would be designed and constructed in accordance with local building codes and zoning ordinances to ensure it is consistent with other area developments.

Short-term dust and noise from construction have the potential to adversely affect adjacent offsite areas and land uses, notably including nearby sensitive receptors. BMPs would be used to reduce construction dust and noise emissions to the maximum extent possible, in accordance with local ordinances and requirements; no long-term noise or dust effects are anticipated. Implementation of these BMPs and compliance with local requirements would result in a short-term, less-than-significant effects to adjacent land uses. Potential air quality and noise effects to offsite land uses and sensitive receptors are discussed in Sections 3.3 and 3.8.

**3.9.3 Mitigation/Management Measures**

No project-specific mitigation and management measures are required.



<p><b>FIGURE 10 – CURRENT BREVARD COUNTY ZONING MAP OF SITE</b></p> <p><b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b></p> <p><b>PROPOSED NATIONAL CEMETERY BREVARD COUNTY, FLORIDA</b></p>	<p><b>PREPARED FOR VA</b></p>	
	<p><b>WBC PROJECT 2961-351-01-01</b></p> <p><b>JULY 2012</b></p>	

### 3.10 Wetlands, Floodplains, and Coastal Zone Management

#### 3.10.1 Wetlands

Information provided by the USFWS Online Wetland Mapper indicates that the Site includes three areas of mapped wetlands, including one small open water system in the west-central portion; a forested wetland complex in the eastern portion; and an emergent wetland complex in the eastern portion. In addition, lands surrounding the Site included inventoried wetlands.

The Oak Hill and Mims, Florida USGS Topographic Quadrangles, and the FEMA FIRM for the Site indicate that a portion of Big Flounder Creek crosses the central portion of the Site from north to south, runs along the southern boundary of the eastern portion of the Site and discharges into the Indian River approximately 1,500 feet southeast of the Site. The topographic maps and FIRM also indicate that there are up to four additional man-made drainage channels in the north-central portion of the Site and up to four man-made drainage channels in the eastern portion of the Site. All of the man-made drainage channels at the Site appear to be hydrologically connected to Big Flounder Creek.

A field review of the Site identified an area of vegetation on the eastern end of the site that contained a number of vegetative species that would normally indicate wetlands. The area of wetlands vegetation is further classified as a Cabbage Palm Hammock. This system is a well-developed hardwood and cabbage palm community with a variable understory. The location of this vegetation is identified on [Figure 7](#).

In addition, one natural drainage channel in the central portion of the Site (Big Flounder Creek) and eight to ten man-made drainage channels were noted throughout the Site. Although the majority of these channels appear to be only seasonally active, the channels do appear to be hydraulically connected to one another and ultimately connected to Big Flounder Creek which discharges into the Indian River approximately 1,500 feet southeast of the Site. The location of the water-related features are identified on [Figure 7](#).

#### 3.10.2 Floodplains

According to available Federal Emergency Management Agency (FEMA) floodplain mapping (FIRM Map Number 12009C0040F, dated August 18, 1992), the eastern approximately 50 acres (16%) of the Site includes areas within the 100-year floodplain (Zone AE). In addition, approximately 2.6 acres (1%) in the central portion of the Site are located within the 100-year floodplain (Zone A). The remaining portions of the Site are not located in the 100-year or 500-year floodplain (Zone X). Areas adjacent to the north, northeast, east, and southeast of the Site are also included in the 100-year floodplain. The locations of the floodplains are identified on [Figure 11](#).

Brevard County maintains a floodplain management ordinance via the Brevard County Code of Ordinances, Chapter 62 (LDR), Article X (Environmental Protection and Conservation), Division 5 (Floodplain Protection); and Article XI (Flood Damage Protection). Permit standards would need to be adhered to during all future construction activities.

#### 3.10.3 Coastal Zone

The Coastal Zone Management Act (CZMA) was promulgated to control nonpoint pollution sources that affect coastal water quality. The CZMA of 1990, as amended (16 USC 1451 *et seq.*) encourages States to preserve, protect, develop, and where possible, restore or enhance valuable natural coastal resources such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as the fish and wildlife using those habitats. The entire State of Florida is located within a designated coastal zone (NOAA 2011).

In Florida, the CZMA is administered by the FDEP-Coastal Management Program (CMP), a State agency that has a current, comprehensive coastal management program validated by the NOAA. As a federally approved coastal management program, the CMP has broad opportunities through a Federal Consistency Review authority to influence Federal government activities, construction, funding, permitting, and other actions proposed within the designated coastal zone. The CMP promotes coordination between State and Federal policies, programs, and agencies. Federal regulations (15 CFR Part 930) establish the basic policies and procedures for coastal states, Federal agencies, and other affected parties pertaining to the Federal Consistency Review process under the CZMA (FDEP).

Consequently, VA, as a Federal agency, must coordinate with the FDEP-CMP to ensure that its Proposed Action is consistent with the CMP's Coastal Zone Management Program. A formal review of plans and specifications would be required prior to site construction activities (FDEP 2011).

Brevard County maintains a coastal zone management ordinance via the Brevard County Code of Ordinances, Chapter 22 (Buildings and Building Regulations), Article V (Coastal Construction Code), and Chapter 62 (LDR), Article XII (Coastal Setback and Control Lines). Permit standards would need to be adhered to during all future construction activities.

#### **3.10.4 Effects of the No Action Alternative**

Under the No Action Alternative, no construction by VA would occur. No impacts to water resources would occur. Should the Site ultimately be developed for another use, impacts would result from that new development, and would depend upon the nature of the development.

#### **3.10.5 Effects of the Preferred Action Alternative**

Acquisition of the Preferred Action Alternative Site by VA would produce no direct wetlands, floodplains, and coastal zone management effects. However, future development of a new National Cemetery could have wetlands, floodplains, and coastal zone management effects, as discussed below.

Construction of a new cemetery at the Site has the potential to result in impacts to wetlands and surface waters, and floodplains. However, it is fully anticipated that through environmentally sensitive site design, good engineering practices, and consultation with authorized Federal, State, and local agencies, these potential impacts would be avoided or mitigated to less-than-significant levels. Wetland and surface waters and floodplains would be avoided wherever possible.

All wetlands and surface waters at the Site would likely be under the jurisdiction of the USACE (Section 404) due to their connection to "Waters of the US" or the FDEP and SJRWMD for those surface waters determined not to be "Waters of the US" (isolated wetlands). An ERP, that would be completed during the cemetery design process, would include any needed water quality certification (WQC) under Section 401 of the Clean Water Act and Coastal Zone Consistency Concurrence with Florida's federally approved Coastal Zone Management program under Section 307 of the Coastal Zone Management Act. Any activity within or that may impact the "Waters of the US" and jurisdictional wetlands would require a permit from the appropriate State or Federal agency(ies).

VA would implement a Site design that avoids impacting wetlands and Waters of the U.S. to the maximum extent possible. These designs will be subject to the requirements of necessary permits from the USACE, FDEP, and SJRWMD.

Construction and placement of any fill within the 100-year floodplain would require creation of compensatory storage. Compensatory storage is additional flood storage provided on-site or

offsite in areas where the original volume of flood water has been displaced by development of the Property.

VA would implement a site design that avoids filling or other impacts to the on-site and off-site floodplains to the maximum extent possible.

### 3.10.6 Mitigation/Management Measures

Mitigation measure(s) may be necessary regarding impacts to wetlands. These measures (if necessary) will be established during the site specific design process, to be evaluated during the SEA.

VA would implement the following avoidance and management measures to reduce potential adverse effects to wetlands and Waters of the US and floodplains to acceptable, less-than-significant levels. These measures will be more fully developed as part of the subsequent, site-specific, tiered EA, concurrent with site design efforts. It is anticipated that onsite, surface water features (i.e. wetlands and/or Waters of the U.S.) and floodplains would be avoided through sensitive design. VA would:

**Wetlands and Waters of the US.** Complete a USACE wetland delineation of the Site. Avoid onsite surface water resources to the extent possible during the site design process. Consult with, and obtain the necessary permit(s) from, the USACE under Section 404 of the Clean Water Act and applicable State agencies (FDEP and SJRWMD) to minimize adverse effects to jurisdictional surface water resources prior to construction. VA anticipates that final cemetery design will maintain a buffer of undisturbed land around the majority of identified surface water resources. However, in those cases where impacts to wetlands and Water of the US cannot be avoided (e.g., at stream crossings), VA will obtain and comply with all necessary permits from State (FDEP and SJRWMD) and Federal (USACE) agencies.

**Floodplains.** Avoid construction or the placement of fill within the 100-year on-site floodplains. VA anticipates that the final cemetery design will maintain a buffer of undisturbed land around the identified floodplains. However, if impacts to the floodplains cannot be avoided, VA will create compensatory flood storage so as not to affect flood elevations on-site or off-site.

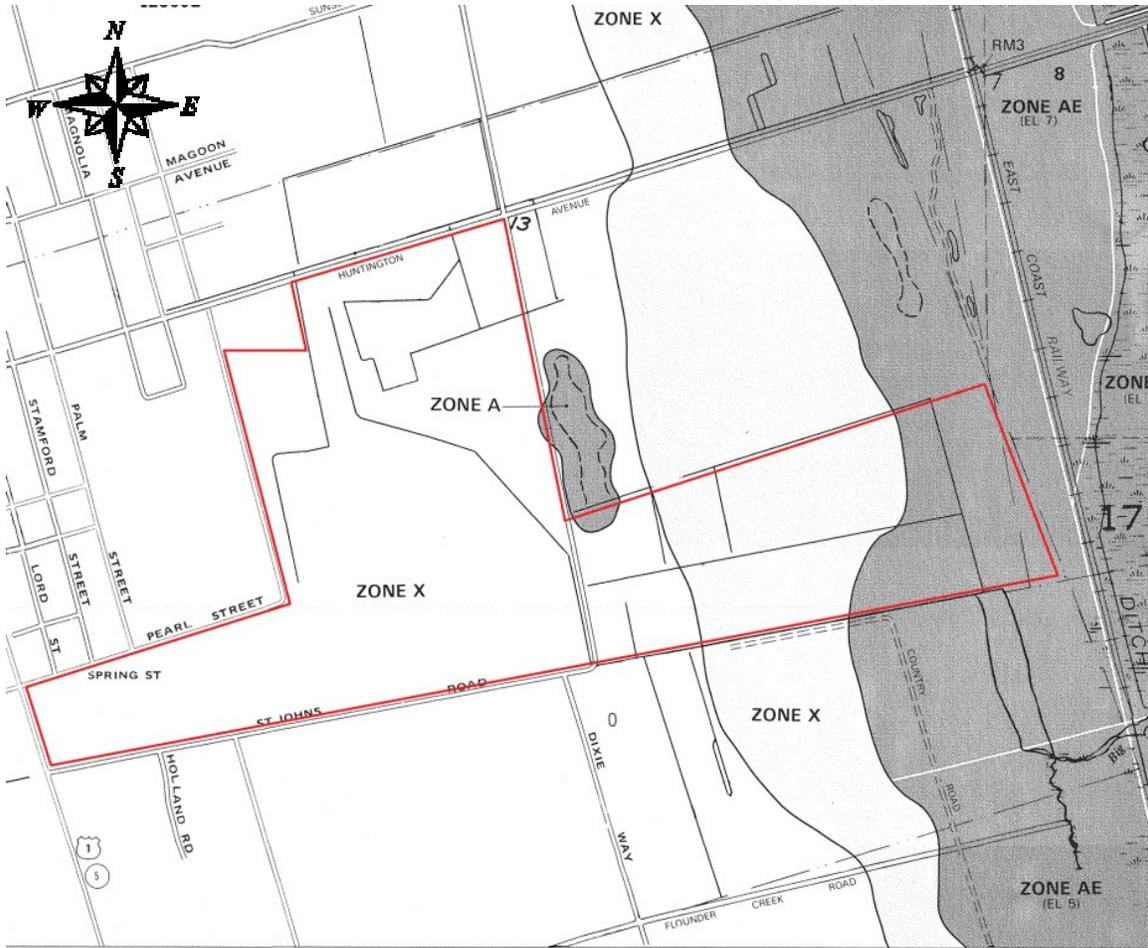
VA would implement the above measures to ensure adverse effects would be minimized and maintained at acceptable, less-than-significant levels.

To minimize potential adverse impacts to the Site area, VA would:

- Complete a USACE wetland delineation of the Site.
- Implement BMPs to reduce erosion and sedimentation impacts during construction to further minimize potential impacts to the water quality of the Site area.
- Develop a site design that avoids interaction with onsite and adjacent wetlands and surface waters.
- Develop a site design that avoids filling or constructing within on-site floodplains.
- Obtain and execute any requirements of necessary permits from the USACE, FDEP, SJRWMD, and Brevard County.
- Comply with Brevard County Code of Ordinances, Chapter 62 (LDR), Article X (Environmental Protection and Conservation, Division 4 (Wetland Protection)).

- Comply with Brevard County Code of Ordinances, Chapter 62 (LDR), Article X (Environmental Protection and Conservation), Division 5 (Floodplain Protection); and Article XI (Flood Damage Protection). Permit standards would need to be adhered to during all future construction activities.
  
- Comply with Brevard County Code of Ordinances, Chapter 22 (Buildings and Building Regulations), Article V (Coastal Construction Code), and Chapter 62 (LDR), Article XII (Coastal Setback and Control Lines). Permit standards would need to be adhered to during all future construction activities.

Implementation of these BMPs would ensure identified wetlands and water resources impacts are maintained at less-than-significant levels.



<p><b>FIGURE 11 – FEMA FLOODPLAIN MAP OF SITE</b></p> <p><b>PROGRAMMATIC ENVIRONMENTAL ASSESSMENT</b></p> <p><b>PROPOSED NATIONAL CEMETERY BREVARD COUNTY, FLORIDA</b></p>	<p><b>PREPARED FOR VA</b></p>	
	<p><b>WBC PROJECT 2961-351-01-01</b></p> <p><b>JULY 2012</b></p>	<p><b>WEAVER BOOS CONSULTANTS</b></p>

### 3.11 Socioeconomics

The following subsections identify and describe the socioeconomic environment of Brevard County, Florida. Presented data provide an understanding of the socioeconomic factors that have developed the area. Socioeconomic areas of discussion include the local demographics of the area, regional and local economy, and local housing. Data used in preparing this section were collected from the 2000 Census of Population and Housing (US Census Bureau), subsequent US Census Bureau data, and the US Department of Commerce Bureau of Economic Analysis (BEA).

#### 3.11.1 Demographics

The Site is located within an unincorporated area of Brevard County, Florida. Brevard County's estimated population in 2010 was 543,376 citizens (US Census Bureau 2010). The estimated population total for Florida was 18,801,310 residents in 2010 (US Census Bureau 2010).

Population totals for Brevard County and the State of Florida have increased from 1990 to 2011 (see [Table 3](#)).

Area	1990	2000	2010
Florida	12,937,926	15,982,839	18,801,310
Brevard County	398,978	476,230	543,376

Sources: US Census Bureau, Profile of General Demographic Characteristics.

Baseline information identified that Brevard County has higher white, and lower African-American and Hispanic populations than Florida as a whole. Otherwise, Brevard County has similar minority populations as the State of Florida as a whole ([Table 4](#)).

Area	All Individuals	White (%)	African-American (%)	American Indian and Alaska Native (%)	Asian or Pacific Islander (%)	Other Race (%)	Hispanic or Latino* (%)
Florida	18,801,310	75	16	0.4	2.5	2.5	22.5
Brevard County	543,376	83	10.1	0.4	2.1	2.6	8.1

Note: The six percentages reported by the US Census Bureau for each geographic region may total more than 100% because individuals may report more than one race.  
Source: US Census Bureau, 2010 Census, Profile of General Demographic Characteristics.

According to the 2005-2009 US Census statistics, Brevard County has a higher percentage of high school graduates and bachelor's degrees compared to Florida as a whole. Educational attainment data are presented in [Table 5](#).

<b>Educational Attainment</b>	<b>Brevard County (%)</b>	<b>Florida (%)</b>
High school graduate (incl. equivalency)	89.9	84.9
Bachelor's degree or higher	26.4	25.6
Source: US Census Bureau 2005 - 2009.		

### 3.11.2 Employment and Income

Brevard County's employment is primarily centered on trade, transportation, and utilities (17.6%), education and health services (16.7%), professional and business services (16.2%), leisure and hospitality (11.2%), and manufacturing (10.8%).

Unemployment rates for Brevard County are slightly higher than for Florida as depicted in [Table 6](#). Median household and per capita income for Brevard County residents is slightly higher than that of the rest of Florida. In addition, the population below the poverty level for Brevard County is lower than the rest of Florida.

<b>Area</b>	<b>Number of Households</b>	<b>Median Household Income (\$)</b>	<b>Per Capita Income (\$)</b>	<b>Population Below Poverty Level (%)</b>	<b>Unemployment Rate (%) 2011</b>
Florida	7,076,539	44,755	26,503	15	10.6
Brevard County	218,885	45,683	27,342	11.6	11.5
Source: US Census Bureau 2005 - 2009.					

### 3.11.3 Commuting Patterns

Residents of Scottsmeer are largely dependent on personal automobiles for transportation to and from work. Other methods of transit include public transportation, carpooling, and walking. Local commuting times are approximately 20 minutes (one-way) due to the size and population density of Scottsmeer and Brevard County. Public transportation in the Site area is provided by the Space Coast Area Transit System (SCATS). The nearest public transportation stop is located approximately 1.5 miles south of the Site.

### 3.11.4 Housing

Rates of owner-occupied housing in Brevard County are higher than the rest of Florida and median housing values in Brevard County are lower than the rest of Florida. This is likely reflective of the rural nature of Brevard County (see [Table 7](#)).

Area	Total Housing Units	Occupied (%)	Owner-Occupied (%)	Median Value (\$)	Renter-Occupied (%)	Median Contract Rent (\$)
Florida	8,852,754	N/A	69.7	211,300	N/A	N/A
Brevard County	269,864	N/A	76.2	195,800	N/A	N/A

Source: US Census Bureau 2005 - 2009. \* - US Census Bureau 2000.

### 3.11.5 Protection of Children

Because children may suffer disproportionately from environmental health risks and safety risks, EO 13045, *Protection of Children From Environmental Health Risks and Safety Risks*, was introduced in 1997 to prioritize the identification and assessment of environmental health risks and safety risks that may affect children and to ensure that Federal agencies' policies, programs, activities, and standards address environmental risks and safety risks to children. This section identifies the distribution of children and locations where numbers of children may be proportionately high (e.g., schools, childcare centers, family housing, etc.) in areas potentially affected by the Proposed Action.

Children are not regularly present at the Site, which is used for agricultural purposes and contains no structures or recreation areas. Children are present on the neighboring residential properties. The percentage of the population under age 18 is slightly lower within Brevard County as compared to the rest of Florida (see [Table 8](#)).

Area	Total Population (2010)	Population Under 18	
		Number	Percent
Florida	18,801,310	4,117,487	21.3
Brevard County	543,376	107,588	19.8

Source: 2010 American Community Survey.

### 3.11.6 Effects of the No Action Alternative

Implementation of the No Action Alternative would result in no construction and no increased short- or long-term economic benefit due to VA's action. Under this alternative, no new construction or cemetery jobs would be created, and no additional incidental spending (e.g., at local restaurants, shops, and hotels) by an increased number of people potentially traveling to the national cemetery would occur.

Most importantly, the inability of VA to provide adequate burial sites with the future need for these services would result in a *significant adverse*, long-term, indirect impact to US Veterans. Should the Site be developed in the future by others, similar short- and long-term, positive socioeconomic impacts as realized under the Proposed Action could occur, depending upon the use.

### **3.11.7 Effects of the Preferred Action Alternative**

Acquisition of the Preferred Action Alternative Site by VA would produce no direct socioeconomic effects. Future development of a new National Cemetery is not likely to have adverse socioeconomic effects.

Construction of the Proposed Action is anticipated to result in short-term, direct, positive socioeconomic impacts to local employment and personal income. Construction of the proposed National Cemetery would potentially provide additional temporary construction jobs in the private sector, thus providing short-term socioeconomic benefit to the area. However, due to the intermittent and finite nature of these construction projects, no long-term impacts to the construction labor force are anticipated. Increased development in the region would indirectly benefit the local economy through the spending of business and personal income generated from the construction and operation of the proposed facility. As such, a long-term, indirect, positive impact to the local economy is anticipated from operation of the facility. The Proposed Action would result in long-term positive socioeconomic impacts by providing a regionally proximate National Cemetery to US Veterans.

No adverse health or safety risks to children are anticipated to result from construction or operation of the National Cemetery. In addition, children would only be present at the Site as visitors. Construction areas would be secured to prevent unauthorized access by children from the nearby residential areas. The construction contractor would limit and control construction dust and noise as discussed in Sections 3.3 and 3.8, thereby minimizing adverse effects to children in the area.

### **3.11.8 Mitigation/Management Measures**

No project-specific mitigation or management measures are required.

## **3.12 Community Services**

The Site is located within the Brevard Public Schools District. This school district includes 107 schools (Brevard Public Schools District 2012). Outward Bound School is located approximately 2,200 feet north of the Site. No other public schools are located within 0.5 mile of the Site (Brevard Public Schools District 2012).

The Brevard County Sheriff's Department provides police protection to the Site and its vicinity. The Brevard County Fire Department provides fire protection and emergency medical services to the Sites and its vicinity. The Florida Department of Transportation (FDOT) and the Brevard County Public Works Department provide local road and bridge maintenance to the Site and its vicinity.

Parish Medical Center is located approximately nine miles southeast of the Site. No other medical facilities are located in the vicinity of the Site.

Public transportation provided by the Space Coast Area Transit System (SCATS) is not currently to the vicinity of the Site. The near public transportation stop is associated with SCATS Route 5, located approximately 1.5 miles south of the Site at the intersection of Highway 1 and Aurantia Road.

There are no developed recreational facilities on the Site; however, undeveloped land to the east and north of the Site is currently owned by the State of Florida and is classified as conservation lands.

### **3.12.1 Effects of the No Action Alternative**

Under the No Action Alternative, no construction by VA would occur and no Community Services effects would be anticipated. Should the Site be developed in the future by others, impacts are likely to occur, depending upon the developed use.

### **3.12.2 Effects of the Preferred Action Alternative**

Acquisition of the Preferred Action Alternative Site by VA would produce no direct community services effects. Future development of a new National Cemetery would have minimal community services effects.

No significant additional load is expected to be placed on the fire or police departments as the result of implementing the Proposed Action. Use of other public or community services as a result of the proposed National Cemetery is not expected. As such, the Proposed Action is expected to have a negligible impact on local public services.

### **3.12.3 Mitigation/Management Measures**

No mitigation or management measures are required.

## **3.13 Solid and Hazardous Materials**

Hazardous and toxic materials or substances are generally defined as materials or substances that pose a risk (i.e., through either physical or chemical reactions) to human health or the environment. Regulated hazardous substances are identified through a number of Federal laws and regulations. The most comprehensive list is contained in 40 CFR 302, and identifies quantities of these substances, when released to the environment, that require notification to a Federal agency. Hazardous wastes, defined in 40 CFR 261.3, are considered hazardous substances. Generally, hazardous wastes are discarded materials (e.g., solids or liquids) not otherwise excluded by 40 CFR 261.4 that exhibit a hazardous characteristic (i.e., ignitable, corrosive, reactive, or toxic), or are specifically identified within 40 CFR 261. Petroleum products are specifically exempted from 40 CFR 302, but some are also generally considered hazardous substances due to their physical characteristics (i.e., especially fuel products), and their ability to impair natural resources.

A Phase I ESA was conducted for the Site (Weaver Boos July 2011) and identified the following Recognized Environmental Conditions (RECs):

- Ethylene dibromide (EDB), a soil fumigant, was detected in nine separate drinking water wells in the vicinity of the Site in excess of the applicable cleanup criteria. EDB was used as a fumigant to protect against insects, pests, and nematodes in citrus, vegetable, and grain crops, and as a fumigant for turf, particularly on golf courses. In 1984, EPA banned its use as a soil and grain fumigant. Although no documentation of EDB in groundwater on the Site has been identified, based on its prevalence in the Site area, Weaver Boos concluded that groundwater at the Site has likely been impacted with EDB. However, Weaver Boos stated that municipal water is provided to the Site vicinity and no additional investigations were recommended.
- A Resource Conservation and Recovery Act (RCRA) Corrective Action Activity Site (Chemko Technical Services), is located approximately 650 feet south of the southwestern corner of the Site. Information regarding Chemko Technical Services indicated that groundwater impacts are classified as "under control".

### **3.13.1 Effects of the No Action Alternative**

Under the No Action Alternative, no construction by VA would occur and no solid and hazardous materials use or effects would be anticipated. Hazardous substance use at the Site associated with the current agricultural use would continue. Should the Site be developed in

the future by others, similar short-term solid and hazardous materials impacts as realized under the Proposed Action could occur, depending upon the use. In addition, depending upon the use, long-term solid and hazardous materials impacts could occur.

### 3.13.2 Effects of the Preferred Action Alternative

Acquisition of the Preferred Action Alternative Site by VA would produce no direct solid and hazardous materials effects. Future development of a new National Cemetery would result in minimal solid and hazardous materials effects.

The Proposed Action would result in *short-term, less-than-significant adverse impacts* due to the increased presence and use of solid and hazardous materials during construction. No significant adverse long-term impacts during operation are anticipated; long-term operational solid and hazardous materials would be managed in accordance with VA's solid and hazardous materials SOPs and applicable Federal and State laws. This alternative would not result in a substantial increase in the generation of solid or hazardous substances or wastes, increase the exposure of persons to hazardous or toxic substances, increase the presence of hazardous or toxic materials in the environment, or place substantial restrictions on property use due to hazardous waste, materials, or site remediation. As noted in Section 3.6.2, based on standard burial practices, it is unlikely that embalming fluid would be released into the soil or groundwater.

During construction, a small increase in construction vehicle traffic would increase the likelihood for release of vehicle operating fluids (e.g., oil, diesel, gasoline, antifreeze, etc.) and maintenance materials. As such, a *less-than-significant, direct, short-term adverse impact* is possible. Implementation of standard construction BMPs would serve to ensure this impact is further minimized.

According to the Florida Department of Health (FDOH), Division of Environmental Health (DEH), concern for exposure to EDB is limited to the ingestion of drinking water. In almost all cases, the concentrations of EDB found in Florida groundwater are too low to result in short-term exposures. FDOH reports that untreated EDB contaminated water is typically safe to use for washing dishes, flushing the toilet, and other normal household and garden uses (FDOH 2012). Since the greatest concern for exposure to EDB is limited to the ingestion of drinking water and the proposed cemetery would be connected to the municipal water supply for drinking water, the probable presence of EDB in Site groundwater is considered to have significant adverse effect on the Preferred Action Alternative.

As discussed in Section 3.6.4, no significant dewatering is anticipated during construction activities that would exacerbate EDB-contaminated groundwater. If groundwater is used for irrigation of the cemetery, VA would implement controls to prevent the spread of impacted groundwater. Effects of the use of groundwater for site irrigation will be evaluated in the SEA, if applicable, based on the site design.

Although Chemko Technical Services was identified as a RCRA Corrective Action facility and is in the vicinity of the Site, groundwater impacts were classified as "under control". In addition, this facility is located approximately 650 feet south of the Site.

### 3.13.3 Mitigation/Management Measures

No mitigation measures are required.

Construction effects would be minimized through BMPs; during operation, the Proposed Action would comply with existing VA SOPs and applicable Federal and State laws governing the use, generation, storage, or transportation of solid or hazardous materials. To minimize potential adverse impacts to the Site area, VA would:

- Comply with Brevard County Code of Ordinances, Chapter 94 (Solid Waste), Article V (Hazardous Waste Management) and Chapter 222 (Environment), Article II (Pollution), Division 2 (Pollution Control Act).
- Comply with the FDOH requirements for safe use of EDB-contaminated groundwater, including using municipal drinking water.

### 3.14 Transportation and Parking

Access to the Site is provided directly from Highway 1 (western boundary), Seminole Street (western boundary), Johns Road (southern boundary), Dixie Way (central portion), Pearl Street (northern boundary), and Huntington Avenue (northern boundary).

Highway 1 is a generally north-south oriented, four-lane, undivided highway along the western boundary of the Site with a current estimated Level of Service<sup>1</sup> (LOS) rating of B or better. Seminole Street and Dixie Way are generally north-south oriented, two-lane paved and unpaved roads with a current estimated LOS rating of B or better. Johns Road, Pearl Street, and Huntington Avenue are generally east-west oriented, two-lane paved roads with a current estimated LOS rating of B or better. FDOT provided the following LOS information for Highway 1:

US 1 in this location is a four lane divided rural facility and is not part of the Florida Intrastate Highway System nor is it part of Florida's Strategic Intrastate System. The Federal classification for this segment of US 1 is Rural Principle Arterial – Other. The FDOT Level of Service for this segment is B which would equate to a capacity of approximately 26,300 vehicles per day. The year 2010 traffic counts for this segment is 2,700 AADT. This segment of US 1 is operating at only 10.27% of its capacity. Traffic congestion is not an issue on this segment of US 1.

BCPW did not provide any LOS information. Local roadway characteristics are shown in [Table 9](#).

Traffic in the Site area is regulated by FDOT (Highway 1) and Brevard County (remaining adjacent roadways). Under current conditions, all of the adjacent roadways operate at or above acceptable LOS ratings mainly due to the lack of development in the vicinity of the Site.

Type	Route	Direction	Section	Road Width (feet)	Lanes	Average Daily Traffic (vehicles)	Level of Service
Highway	Highway 1	North-South	Site	50	4	2700	B
County	Seminole Street	North-South	Site	25	2	n/a	B
County	Dixie Way	North-South	Site	25	2	n/a	B
County	Johns Road	East-West	Site	25	2	n/a	B
County	Pearl Street	East-West	Site	25	2	n/a	B

<sup>1</sup> **Level of Service** – LOS represents a set of qualitative descriptions of a transportation system's performance. The Federal Highway Administration Highway Capacity Manual defines levels of service for intersections and highway segments, with ratings that range from A (best) to F (worst). Generally, a LOS of D or higher is considered acceptable by transportation planning agencies.

County	Huntington Avenue	East-West	Site	25	2	n/a	B
n/a – not available Source: Weaver Boos Site Reconnaissance							

### 3.14.1 Effects of the No Action Alternative

Under the No Action Alternative, no construction by VA would occur. However, should the Site ultimately be developed by others, impacts as identified under the Preferred Action Alternative would occur. The type and magnitude of transportation effects would be dependent upon that proposed future use.

### 3.14.2 Effects of the Preferred Action Alternative

Acquisition of the Preferred Action Alternative Site by VA would produce no direct transportation and parking effects. Future development of a new National Cemetery would likely have *less-than-significant* adverse impacts to transportation and parking.

Construction traffic, consisting of trucks, workers' personal vehicles, and construction equipment, would increase traffic volumes in the local area, and could cause delays if this occurred during morning and evening peak periods. Installation and connection of utilities could also impact local roadways. These activities could result in additional traffic congestion, as well as a potential need to detour traffic around the area during utility work. However, all of the roadways adjacent to the Site are not heavily used and operate at LOS of B or better. Thus, only less-than-significant, short-term adverse impacts would be anticipated.

During operation, public roadways in the vicinity of the proposed National Cemetery would experience some additional traffic as a result of usage of the National Cemetery. As described in Section 2.2, the National Cemetery would be used every day throughout the year by approximately 150 visitors, six staff, and up to 12 funeral processions per day (averaging 30 cars per procession), generating about 500 vehicle round trips/day on a busy day.

Although a minor increase in use may occur, these minor additional trips would likely be accommodated by the LOSs of the roadways adjacent to the Site, and would likely occur outside of peak travel times.

Given the proposed operational use, traffic generated by the Proposed Action would occur throughout the day, every day. Visitors the National Cemetery would travel at various times during the day during daylight hours. Staff at the Center would commute to and from work for at peak travel hours (i.e., at 8 a.m. and 5 p.m.).

It is reasonably presumed that the Proposed Action would contribute much less than a 20 percent increase to local roadways. The Proposed Action, at most, would contribute approximately 250 additional vehicle trips per day. Based on the proposed maximum usage estimates, operational traffic would not produce a significant adverse impact to local traffic conditions as defined at 38 CFR 26(2)(ii); this regulation defines a significant traffic impact as "an increase in average daily traffic volume of at least 20 percent on access roads to the Site or the major roadway network." Although funeral processions could have some traffic impacts at peak times, the overall impacts would be less-than-significant, long-term adverse traffic impacts.

However, as the Proposed Action will result in an increase in traffic, a Traffic Impact Analysis (TIA) would be completed as part of the subsequent, site-specific, tiered EA, concurrent with site design efforts.

### 3.14.3 Mitigation/Management Measures

No project-specific mitigation measures are required.

Implementing BMPs to reduce transportation impacts would further minimize the potential impacts on local roadways. As part of the Preferred Action Alternative, transportation impacts would be maintained at acceptable levels through implementation of the following BMPs:

- Construct deceleration and turning lanes, and potentially install a traffic light on adjacent roadways.
- Ensure debris and/or soil is not deposited on local roadways during the construction period.
- Ensure construction activities do not adversely affect traffic flow on local roadways; construction would be timed to avoid peak travel hours.
- VA would coordinate with local officials and the FDOT to ensure that construction and operational traffic are considered in the planning of future transportation improvements in this vicinity.
- VA would complete a TIA for the Site as part of the SEA.

Implementation of these BMPs would ensure transportation impacts are maintained at less-than-significant levels by properly controlling and limiting impacts to local traffic and transportation infrastructure during construction and operation.

### 3.15 Utilities

Basic utilities in Brevard County (i.e., water, sewer, electric, and natural gas) are provided by various utility providers. As part of the preparation of this PEA, local utility providers were researched to determine the availability of required utilities in the vicinity of the Site.

The following identifies the utility providers to the Site:

The **Brevard County Utilities (BCU)** supplies potable water to the Site area. According to the BCU, the potable water service in the vicinity of the Site is adequate for the Proposed Action. Proposed Action design plans would require approval from the BCU prior to development activities.

The **BCU** supplies sewer service to the Site area. According to the BCU, the sewer service in the vicinity of the Site is adequate for the Proposed Action. Proposed Action design plans would require approval from the BCU prior to development activities. In addition, on-site stormwater management would likely be required to maintain 100-year pre-post-construction surface water runoff levels.

**Florida Light and Power (FLP)** supplies the electric service to the Site. According to FLP, the electrical service in the vicinity of the Site is adequate for the Proposed Action. Proposed Action design plans would require approval from FLP prior to development activities.

The **Florida City Gas Company (FCGC)** supplies the natural gas service to the Site. According to the FCGC, the natural gas service in the vicinity of the Site is adequate for the Proposed Action. Proposed Action design plans would require approval from the FCGC prior to development activities.

**Brighthouse Networks and AT&T** provide telecommunication services to the Site vicinity. The Proposed Action is likely to require minimal telecommunication services; therefore, the telecommunications services in the Site vicinity are likely to be adequate for the Proposed

Action. Brighthouse Networks and AT&T should be contacted in advance of construction activities in order to determine the service required.

In addition, an existing four-inch diameter water supply well is used at the Site for irrigation activities.

### **3.15.1 Effects of the No Action Alternative**

Under the No Action Alternative, no construction by VA would occur. However, should the Site ultimately be developed by others, impacts as identified under the Proposed Action would occur. The type and magnitude of utility effects would be dependent upon that proposed future use.

### **3.15.2 Effects of the Preferred Action Alternative**

Acquisition of the Preferred Action Alternative Site by VA would produce no direct utilities effects. Future development of a new National Cemetery would have impacts to utilities.

Construction of the proposed National Cemetery would result in an increase in the consumption of utilities, including electricity, potable water, and sanitary sewer discharges. All major utility services are available immediately next to or in close proximity to the Site. The proposed cemetery would be anticipated to have minimal utility needs. Water would be anticipated to have the largest demand due to the need for maintaining landscaped areas of the cemetery. Potable water would be obtained from Brevard County Utilities. Irrigation water may be obtained from BCU or an on-site water well may be used; this will be determined during the site design. If an on-site water well is used for irrigation, a consumptive use permit would be required from the SJRWMD. SJRWMD has placed an emphasis on the development and utilization of "alternative water supplies" for irrigation purposes. These alternative water supplies may include the use of stored stormwater directly from a developed site or the use of "reclaimed" water provided by a water/wastewater utility. No reclaimed water from wastewater is currently available to the Site. However, it is anticipated that the cemetery design for necessary site re-grading and stormwater management structures will afford an opportunity to reuse stormwater for irrigation purposes.

Activities at the proposed cemetery would likely be limited to daylight hours, minimizing the need for electric service. Additionally, telecommunications services would be limited to the needs of National Cemetery staff.

Based on consultation with local service providers, adequate utilities exist to supply the facility as currently proposed. However, each utility provider would require a review of the detailed final design plans to validate these preliminary findings and to determine connection/extension requirements to service the proposed cemetery. As such, *no significant adverse impacts* to local utilities are anticipated.

### **3.15.3 Mitigation/Management Measures**

No project-specific mitigation or management measures are required.

## **3.16 Environmental Justice**

In 1994, EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was issued to focus attention of Federal agencies on human health and environmental conditions in minority and low-income communities and to ensure that disproportionately high and adverse human health or environmental effects on these communities are identified and addressed. In order to provide a thorough environmental justice evaluation, this socioeconomics' presentation gives particular attention to the

distribution of race and poverty status in areas potentially affected by implementation of the Proposed Action. For purposes of this analysis, minority and low-income populations are defined as:

- Minority Populations: Persons of Hispanic origin of any race, African Americans, American Indians, Eskimos, Aleuts, Asians, or Pacific Islanders.
- Low-Income Populations: Persons living below the poverty level, based on a total annual income of \$12,674 for a family of four persons as reported in the 2000 census.

Brevard County has a lower percentage of minority populations than the State of Florida as a whole and the Site is not located in area with a disproportionate concentration of minority citizens relative to the remainder of Florida. The Proposed Action is not likely to have an adverse effect on the local population; but is likely to have a short and long-term positive socioeconomic effect on local employment and personal income.

### **3.16.1 Effects of the No Action Alternative**

Under the No Action Alternative, no development by VA would occur at the Site and there would be no adverse environmental justice effect. If the Site were to be developed by others it is not likely to result in adverse environmental justice effects. However, this would be dependent upon the future use.

### **3.16.2 Effects of the Preferred Action Alternative**

Acquisition of the Preferred Action Alternative Site by VA would produce no direct environmental justice effects. Future development of a new National Cemetery at the Site is not anticipated to have adverse environmental justice effects.

No specific concentrations of minority populations are located in the Site's vicinity relative to the remainder of Florida. No local groups are known to principally rely on fish or wildlife for subsistence. Consequently, no adverse impacts to such disadvantaged segments of the population are anticipated.

The Proposed Action is not likely to have an adverse effect on the local population; but is likely to have a short and long-term positive socioeconomic effect on local employment and personal income.

### **3.16.3 Mitigation/Management Measures**

No project-specific mitigation or management measures are required.

## **3.17 Cumulative Impacts**

As defined by CEQ Regulations in 40 CFR Part 1508.7, cumulative impacts are those which "result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, without regard to the agency (Federal or non-Federal) or individual who undertakes such other actions." Cumulative impact analysis captures the effects that result from the Proposed Action in combination with the effects of other actions taken during the duration of the Proposed Action in the same geographic area. Because of extensive influences of multiple forces, cumulative effects are the most difficult to analyze.

The NEPA requires the analysis of cumulative environmental effects of a Proposed Action, or set of actions, on resources that may often be manifested only at the cumulative level, such as

traffic congestion, air quality, noise, biological resources, cultural resources, socioeconomic conditions, utility system capacities, and others.

Based on a review of historical resources utilized, the Site has been unimproved pasture land, crop land, and wooded land since at least 1943. The adjacent area located to the north is currently undeveloped wooded land, unimproved farmland, scattered commercial properties (along Highway 1), and a residential neighborhood. The adjacent area located to the east is currently a small private airport and Florida East Coast Railroad tracks, beyond which is the Indian River. The adjacent area located to the south is currently undeveloped land, unimproved farmland, and scattered residential and commercial properties (along Highway 1). The adjacent area located to the west is currently undeveloped land, scattered commercial properties (along Highway 1), and residential properties.

The Proposed Action would retain many of the current features at the Site, while preserving natural resources through environmentally sensitive development. The Proposed Action is generally consistent with surrounding land uses, and as such would not produce any cumulative land use effects in the area.

The Proposed Action would result in the impacts identified throughout Section 3. These primarily include potential less-than-significant adverse impacts to aesthetics (short and long-term), air quality (short and long-term), cultural resources (short-term), geology and soils (short and long-term), hydrology and water quality (short and long-term), vegetation and wildlife (short and long-term), noise (short and long-term), wetlands, floodplains, and coastal zones (short and long-term) solid and hazardous materials (short and long-term), and transportation and parking (short and long-term). All of these impacts are further reduced through careful coordination and implementation of general BMPs, avoidance and management measures, and compliance with regulatory requirements as identified throughout Section 3. Given the nature of the Proposed Action, no significant cumulative adverse effects to any of these resource areas are anticipated.

Due to the intermittent and finite nature of these construction projects, no long-term impacts to the construction labor force are anticipated. Increased development in the region would indirectly benefit the local economy through the spending of business and personal income generated from the construction and operation of the proposed facility. As such, a long-term, indirect, positive impact to the local economy is anticipated from operation of the facility.

No adverse effects to land use, socioeconomics, community services, utilities, or environmental justice would occur. As such, no cumulative adverse effects to any of these resource areas are anticipated.

Implementation of the Proposed Action is not expected to cumulatively significantly adversely impact any technical area discussed in this PEA. Cumulative net positive impacts to land use and the local socioeconomic environment would be realized. The Proposed Action would not noticeably contribute to on-site and regional decline in natural resources, and would maintain or enhance the local socioeconomic environment through indirect, positive impacts.

No significant adverse cumulative impacts to the environment, induced by changes by the Proposed Action, are anticipated within the region. Close coordination between the Federal, State, and local representatives would serve to manage and control cumulative effects within the region, including managing regional transportation increases with adequate infrastructure.

Implementation of land use and resource management plans would serve to control the extent of environmental impacts, and proper planning would ensure future socioeconomic conditions maintain, if not improve the local standard of living. Implementation of effective resource management plans and programs should minimize or eliminate any potential cumulative degradation of the natural ecosystem.

Under the No Action Alternative, cumulative impacts would be similar to those identified for the Proposed Action, as the Preferred Action Alternative Site would likely be developed for another use. The extent of cumulative effects under the No Action Alternative would depend upon that future use.

### **3.18 Potential for Generating Substantial Public Controversy**

As discussed in Section 4.0, the VA has solicited input from various Federal, State, and local government agencies regarding the Proposed Action. Several of these agencies have provided input; none of the input has identified opposition or controversy related to the Proposed National Cemetery. In addition, the VA did publish and distribute this PEA, as a Draft, for a 30-day public comment period. No comments were received.

It is not anticipated that there will be substantial public controversy regarding the Proposed Action. The proposed construction and operation of a National Cemetery is consistent with local zoning plans and surrounding land uses. Additionally, there are positive impacts relative to local employment both during construction and operation.

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## SECTION 4: PUBLIC INVOLVEMENT

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### 4.1 Public and Agency Involvement

The VA invites public participation in decision-making on new proposals through the NEPA process. Public participation with respect to decision-making on the Proposed Action is guided by 38 CFR Part 26, the VA's policy for implementing the NEPA. Additional guidance is provided in the VA's Environmental Compliance Manual (VA 1998). Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. Agencies, organizations, and members of the public with a potential interest in the Proposed Action, such as minority, low-income, and disadvantaged persons, are urged to participate. A record of public involvement and agency coordination associated with this PEA is provided in Appendix A.

#### 4.1.1 Public Review

VA, as the Federal proponent of this Proposed Action, did publish and distribute this PEA, as a Draft, for a 30-day public comment period as announced by a Notice of Availability (NOA) published in a local newspaper of general circulation (*Florida Today*). Review copies were also be made available for public review at community libraries in the region. No comments were received.

#### 4.1.2 Agency Coordination

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding Federal Proposed Actions. CEQ Regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts. Through the IICEP process, the VA notifies relevant Federal, State, and local agencies and allows them sufficient time to make known their environmental concerns specific to a Proposed Action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental impacts conducted as part of the PEA. This coordination fulfills requirements under EO 12372 (superseded by EO 12416, and subsequently supplemented by EO 13132), which requires Federal agencies to cooperate with and consider State/US Territory and local views in implementing a Federal proposal. It also constitutes the IICEP process for this PEA.

VA consulted with the following agencies during the preparation of this PEA: the US Fish and Wildlife Service (USFWS) Southeast Region; US Environmental Protection Agency (USEPA) Region IV; US Army Corps of Engineers (USACE) Jacksonville District; Florida Wildlife Commission (FWC); Florida Fish and Wildlife Conservation Commission (FFWCC); Florida Department of Environmental Protection (FDEP) (Office of the Ombudsman and Public Service and Coastal Management Program); Florida Department of Transportation (FDOT); Florida Natural Areas Inventory (FNAI); St. Johns River Water Management District (SJRWMD); Florida Division of Historical Resources (State Historic Preservation Office, or SHPO); Brevard County Fire Rescue (BCFR); Brevard County Planning and Development Department (BCPDD); Brevard County Natural Resources Department (BCNRD); Brevard County Property Appraiser (BCPA); Brevard County Public Works Department (BCPA); Brevard County Health Department (BCHD); Brevard County Parks and Recreation Department (BCPR); and the Brevard County Economic Development Department (BCED).

Received agency information and comments have been fully incorporated and addressed in this PEA. Copies of relevant correspondence can be found in Appendix A.

#### **4.1.3 Native American Consultation**

For Federal proposed actions, Federal agencies are required to consult with federally recognized Native American Tribes in accordance with the NEPA, the National Historic Preservation Act (NHPA), the Native American Graves Protection and Repatriation Act (NAGPRA), and Executive Order (EO) 13175. As part of this PEA, VA identified four Native American Tribes as having possible ancestral ties to the Proposed Action's ROI (i.e., Brevard County, Florida), and invited each Tribe to consult on this Proposed Action. VA identified these Tribes based on the Native American Consultation Database and prior consultation efforts. Section 10 contains a list of the federally recognized Tribes invited to consult. VA conducted all tribal correspondence by certified letters. A sample letter sent to the Tribes and their full responses are included in Appendix A.

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## SECTION 5: MITIGATION

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### 5.1 Mitigation/Management Measures

No project-specific mitigation or management measures are required, other than as noted below.

Mitigation measure(s) may be necessary regarding impacts to wetlands. These measures (if necessary) will be established during the site specific design process, to be evaluated during the SEA.

Per established protocols, procedures, and requirements, the construction contractor would implement BMPs and would satisfy all applicable regulatory requirements in association with the design, construction, and operation of the proposed cemetery. These "management measures" are described in this PEA, and are included as components of the Proposed Action.

#### 5.1.1 Management Measures

"Management measures" are defined as routine BMPs and/or regulatory compliance measures that are regularly implemented as part of proposed activities, as appropriate, across Florida. In general, implementation of such management measures, as identified throughout Section 3, would maintain impacts at acceptable levels for all resource areas analyzed. These are different from "mitigation measures," which are defined as project-specific requirements, not routinely implemented as part of construction projects, necessary to reduce identified potentially significant adverse environmental impacts to less-than-significant levels.

No management measures are identified during this PEA analysis for the following resource areas: **Land Use, Socioeconomics, Community Services, Utilities, and Environmental Justice.**

With implementation of the following routine "management measures," the Proposed Action would not result in significant adverse impacts to, and would reduce any identified potential adverse effects to, the current environmental setting associated with the following technical resource areas:

**Aesthetics.** Comply with Brevard County Land Development Regulations.

**Air Quality.** Control fugitive dust emissions during construction and obtain required air quality emissions construction and operations permits (if any are necessary based on the final design) from the FDEP, as detailed in Section 3.3.

**Cultural Resources.** Properly address any unknown cultural resources discoveries during Site development, as detailed in Section 3.4.

**Geology and Soils.** Control soil E&S impacts during construction by and complying with the NPDES permitting process, as detailed in Section 3.5 in consultation with the NRCS.

**Hydrology and Water Quality.** Control soil erosion and sedimentation impacts during construction by complying with the FDEP and SJRWMP NPDES permitting process and Brevard

County Land Development Regulations, as described in Section 3.6. Include sufficient stormwater management procedures during project design.

**Noise.** Comply with the Brevard County Noise Ordinance. Manage construction activities and schedules to minimize noise impacts, as detailed in Section 3.8.

**Solid and Hazardous Materials.** Implement construction and operational BMPs to minimize effects and to comply with applicable regulations, as detailed in Section 3.13. If groundwater is used for irrigation of the cemetery, implement controls to prevent the spread of EDB impacted groundwater.

**Transportation and Parking.** As part of the design of the cemetery, conduct a traffic impact analysis to identify future traffic impacts on area roads. Work with FDOT and Brevard County to implement required improvements identified by this analysis. Manage construction and operation activities as detailed in Section 3.14.

**Wildlife and Habitat.** Avoid impacts to migratory birds and revegetate with native species.

### 5.1.2 Design Avoidance Measures

VA would implement the following avoidance measures to reduce potential effects to wetlands and Waters of the US, and protected wildlife and habitat, and floodplains to acceptable, less-than-significant levels. These avoidance measures would be more fully developed as part of the subsequent, site-specific, tiered EA, concurrent with site design efforts. The VA would:

**Wetlands and Waters of the US.** Complete an USACE wetland delineation of the Site. Avoid onsite surface water resources to the extent possible during the site design process. Consult with, and obtain the necessary permit(s) from, the USACE under Section 404 of the Clean Water Act and applicable State agencies (FDEP and SJRWMD) to minimize adverse effects to jurisdictional surface water resources prior to construction. VA anticipates that final cemetery design would maintain a buffer of undisturbed land around the majority of identified surface water resources. However, in those cases where impacts to wetlands and Water of the US cannot be avoided (e.g., at stream crossings), VA would obtain and comply with all necessary permits from State (FDEP and SJRWMD) and Federal (USACE) agencies.

**Wildlife and Habitat.** Avoid onsite protected vegetation and wildlife resources to the extent possible during the site design process. Consult with the USFWS, FFWCC, FNAI, and Brevard County to minimize adverse effects to protected vegetation and wildlife resources prior to construction. VA anticipates that final cemetery design would maintain a buffer of undisturbed land around the majority of identified protected vegetation and wildlife resources. However, in those cases where impacts to protected vegetation and wildlife resources cannot be avoided, VA would consult and comply with Federal (USFWS), State (FFWCC and FNAI), and local (Brevard County) agencies.

**Floodplains.** Avoid construction or the placement of fill within the 100-year on-site floodplains. VA anticipates that the final cemetery design will maintain a buffer of undisturbed land around the identified floodplains. However, if impacts to the floodplains cannot be avoided, VA would create compensatory flood storage so as not to affect flood elevations on-site or off-site.

The VA would implement the above measures to ensure all adverse effects would be minimized and maintained at acceptable, less-than-significant levels.

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## SECTION 6: CONCLUSIONS

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This PEA analyzes the potential environmental effects of the Department of Veterans Affairs' (VA's) Proposed Action to select and acquire a site for a new National Cemetery in Brevard County, Florida. This PEA evaluates two alternatives: (1) *Preferred Action Alternative* - Select and acquire the approximately 318-acre Site located east of Highway 1, north of Johns Road, east and west of Dixie Way, south of Huntington Avenue, and west of the Florida East Coast Railroad, southeast of Scottsmeer, Brevard County, Florida, for the future construction and operation of the proposed National Cemetery; and (2) the *No Action Alternative*. This PEA evaluates possible effects to aesthetics; air quality; cultural resources; geology and soils; hydrology and water quality; wildlife and habitat, including threatened and endangered species; noise; land use; floodplains, wetlands, and coastal zone management; socioeconomics; community services; solid and hazardous materials; transportation and parking; utilities; and Environmental Justice (Executive Order [EO] 12898).

Three resource areas (i.e., wetlands/waters of the US, protected wildlife and habitat, and floodplains) were identified as having potential to be significantly impacted by implementing the Preferred Action Alternative. However, incorporation of the avoidance and/or management measures identified in this PEA as part of the environmentally-driven, good engineering site design process would reduce these identified impacts to less-than-significant levels. The specifics will be evaluated during a subsequent, site-specific, tiered EA (SEA), concurrent with site-specific design efforts.

Therefore, this PEA concludes there would be no significant adverse impact, either individually or cumulatively, to the local environment or quality of life associated with implementing the Preferred Action Alternative, provided routine avoidance and management measures specified in this PEA are implemented. Therefore, this PEA concludes that a FONSI is appropriate, and that an EIS is not required. A Site-Specific EA (SEA) will be conducted concurrent with the site design efforts to evaluate potential impact to those resources identified herein.

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**SECTION 7: LIST OF PREPARERS**


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**CONSULTANTS**

Name	Role	Degree	Years of Experience
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<b>Sean Parks, QEP</b> <b>Weaver Boos Consultants</b> <b>Southeast, LLC</b>	Ecological and Environmental Investigation and Data Collection	B.S., Environmental Science, 1994 M.S., Engineering Management, 1995	17
<b>Rob Clark</b> <b>TTL Associates, Inc.</b>	Technical QA/QC Review	B.S., Aquatic Environments/Environmental Science, 1985	25
<b>Paul Jackson</b> <b>TTL Associates, Inc.</b>	Document Preparation	B.A., Biology/English 1992	13

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## SECTION 8: REFERENCES CITED

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- Association of Natural Burials, 2011 and 2012.
- AT&T, 2011 and 2012.
- Brevard County Economic Development Department, 2011 and 2012.
- Brevard County Fire Rescue, 2011 and 2012.
- Brevard County Health Department, 2011 and 2012.
- Brevard County Natural Resources Department, 2011 and 2012.
- Brevard County Parks and Recreation Department, 2011 and 2012.
- Brevard County Planning and Development Department, 2011 and 2012.
- Brevard County Property Appraiser, 2011 and 2012.
- Brevard County Public Works Department, 2011 and 2012.
- Brevard County Utilities, 2011 and 2012.
- Brighthouse Networks, 2011 and 2012.
- Clean Air Act of 1970 (42 USC 7401 *et seq.*; 40 CFR Parts 50-87) Section 176(c).
- Coastal Zone Management Act of 1990, as amended (16 USC 1451 *et seq.*)
- Code of Federal Regulations 40 CFR 261.3
- Endangered Species Act of 1973, as amended (7 USC 136; 16 USC 1531 *et seq.*).
- EO 11988, *Floodplain Management*. 1977.
- EO 11990, *Protection of Wetlands*. 1977.
- EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. 1994.
- EO 13045, *Protection of Children From Environmental Health Risks and Safety Risks*. 1997.
- EO 13175, *Consultation and Coordination with Indian Tribal Governments*. 6 November 2000.
- EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*. 24 January 2007.
- EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*. 5 October 2009.
- Farmland Protection Policy Act (FFPA) (7 USC 4201, *et seq.*).
- Federal Clean Air Act of 1990 (42 USC 7401 *et seq.*, as amended).
- Federal Clean Water Act (Federal Water Pollution Control Act) of 1948, as amended (1972, 1977) (33 USC 1251 *et seq.*); Sections 401 and 404.
- Federal Emergency Management Agency (FEMA), Flood Insurance Rate Maps 1992.

- Florida Administrative Code, Chapter 62-730
- Florida City Gas Company, 2011 and 2012.
- Florida Department of Environmental Protection (FDEP), 2011 and 2012.
- Florida Department of Health, 2012.
- Florida Department of Transportation (FDOT), 2011 and 2012.
- Florida Fish and Wildlife Conservation Commission, 2011 and 2012.
- Florida Light and Power, 2011 and 2012.
- Florida Wildlife Commission, 2011 and 2012.
- Florida Natural Areas Inventory, 2011 and 2012.
- Florida Division of Historical Resources (State Historic Preservation Office), 2011 and 2012.
- Migratory Bird Treaty Act (16 USC 703-712, 3 July 1918; as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986, and 1989).
- National Historic Preservation Act of 1966, as amended (36 CFR Part 800).
- Native American Graves Protection and Repatriation Act, as amended (NAGPRA) (25 USC 3001 et seq.). 1990
- National Oceanic and Atmospheric Association, 2011 and 2012.
- Phase I Environmental Site Assessment (ESA), Approximately 318 Acres Along U.S. Highway 1, Between Pearl Street and Johns Road, Scottsmeer, Brevard County, Florida, prepared by Weaver Boos Consultants and dated July 2011.
- St. Johns River Water Management District, 2011 and 2012.
- US Army Corps of Engineers, Jacksonville District, 2011 and 2012.
- US Fish and Wildlife Service (USFWS), Southeast Region, 2011 and 2012.
- US Environmental Protection Agency (USEPA), Region 4, 2011 and 2012.
- US Department of Commerce Bureau of Economic Analysis 2011.
- US Census Bureau 1990, 1999, 2000, 2008, 2009, and 2010.
- US Department of Agriculture, Natural Resources Conservation Service Web Soil Survey 2011 and 2012.
- US Environmental Protection Agency (USEPA) National Ambient Air Quality Standards (NAAQS), 2008.
- US Geological Survey, 2011 and 2012.
- USEPA Groundwater Atlas of the United States, 2011 and 2012.
- USEPA's Total Maximum Daily Loads (TMDL) Report (USEPA 2006, *Total Maximum Daily Loads, Section 303[d] List*).
- USFWS National Wetlands Inventory Online Mapper, 2011 and 2012.
- VA 2010. NEPA Interim Guidance for Projects. PG-18-17 (rev.). 30 September 2010.

**Websites Consulted:**

FEMA Flood Hazard Insurance Map, website: <http://msc.fema.gov/webapp/wcs/stores/servlet>

Superfund Site Information Systems, US Environmental Protection Agency, website:  
<http://cfpub.epa.gov/supercpad/cursities.htm>

US Department of Veterans Affairs, website: <http://www.va.gov>

USEPA Environmental & Compliance History Online (ECHO) e-database:  
<http://www.epa-echo.gov/echo/>

US Bureau of Census (2000 US Census Data): <http://www.census.gov>

USDA NRCS online web soil survey: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.

Various mapping tools to locate properties, internet, [www.mapquest.com](http://www.mapquest.com),  
[www.maps.google.com](http://www.maps.google.com) , [www.google.earth.com](http://www.google.earth.com) , etc.

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## SECTION 9: LIST OF ACRONYMS AND ABBREVIATIONS

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ACA	Air Compliance Assurance	EDR	Environmental Data Resources
ACHP	Advisory Council on Historic Preservation	EIS	Environmental Impact Statement
ADA	Americans with Disabilities Act of 1990	EO	Executive Order
AIRFA	American Indian Religious Freedom Act	ERP	Environmental Resource Permit
amsl	above mean sea level	ESA	Endangered Species Act
AQD	Air Quality Division	FCGC	Florida City Gas Company
ARPA	Archaeological Resources Protection Act	FDEP	Florida Department of Environmental Protection
AST	Aboveground Storage Tank	FDEPCZM	Florida Department of Environmental Protection Coastal Zone Management
BEA	Bureau of Economic Analysis	FDOH	Florida Department of Health
BCED	Brevard County Economic Development	FDOT	Florida Department of Transportation
BCFR	Brevard County Fire Rescue	FEMA	Federal Emergency Management Agency
BCNRMO	Brevard County Natural Resource Management Office	FIRM	Flood Insurance Rate Map
BCHD	Brevard County Health Department	FLP	Florida Light and Power
BCPA	Brevard County Property Appraiser	FNAI	Florida Natural Features Inventory
BCPR	Brevard County Parks and Recreation	FONSI	Finding of No Significant Impact
BCPDD	Brevard County Planning and Development Department	FPPA	Farmland Protection Policy Act
BCPW	Brevard County Public Works	FS	Feasibility Study
BCU	Brevard County Utilities	FWC	Florida Wildlife Commission
BMP	Best Management Practice	FFWCC	Florida Fish and Wildlife Conservation Commission
CAA	Clean Air Act	GIS	Geographic Information System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	HAP	Hazardous Air Pollutant
CEQ	Council on Environmental Quality	IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
CFR	Code of Federal Regulations	LOS	Level of Service
CMP	Coastal Management Program	NAAQS	National Ambient Air Quality Standards
CO	Carbon Monoxide	NAGPRA	Native American Graves Protection and Repatriation Act
CWA	Clean Water Act	NEPA	National Environmental Policy Act of 1969
CZARA	Coastal Zone Act Reauthorization Amendments	NHPA	National Historic Preservation Act
CZMA	Coastal Zone Management Act	NOA	Notice of Availability
DRD	Demolition, Remediation, and Drainage	NOAA	National Oceanic and Atmospheric Association
E&S	Erosion and Sedimentation	NO <sub>x</sub>	Nitrogen Oxides
EA	Environmental Assessment	NPDES	National Pollution Discharge Elimination System

NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
O <sub>3</sub>	Ozone
OSHA	Occupational Safety and Health Administration
Pb	Lead
PBF	Public Buildings and Facilities
PM	Particulate matter
ppm	parts per million
PTE	Potential to emit
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
RONA	Record of Non-applicability
SFHA	Special Flood Hazard Area
SHPO	Florida Department of Historical Resources (State Historic Preservation Office)
SIP	State Implementation Plan
SJRWMD	St. Johns River Water Management District
SO <sub>2</sub>	Sulfur dioxide
SWPPP	Storm Water Pollution Prevention Plan
TPY	Tons per year
USACE	United States Army Corps of Engineers
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VA	Department of Veterans Affairs

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**SECTION 10: AGENCIES AND INDIVIDUALS CONSULTED**

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**Agencies Consulted****US Fish and Wildlife Service – Southeast Region**

Office of External Affairs  
1875 Century Boulevard  
Atlanta, Georgia 30345  
Phone: (404) 679-7282

**US Environmental Protection Agency, Region 4**

Office of Public Affairs  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street SW  
Atlanta, Georgia 30303-8960  
Phone: (404) 562-9900

**US Army Corps of Engineers – Jacksonville District**

Public Affairs Office  
701 San Marco Boulevard  
Jacksonville, Florida 32207-0019  
Phone: (902)-232-2234

**Florida Fish and Wildlife Conservation Commission**

620 South Meridian Street, M.S. 5B5  
Tallahassee, Florida 32399-1600  
Phone: (850) 410-5272

**Florida Wildlife Commission**

3900 Drane Field Road  
Lakeland, Florida 33811-1207  
Phone: (863) 648-3200

**Florida Department of Environmental Protection**

Office of the Ombudsman and Public Services  
Attention: Public Records Custodian  
3900 Commonwealth Blvd., Mail Slot 49  
Tallahassee, Florida 32399  
Phone: (850) 245-2118

**Florida Department of Environmental Protection**

Coastal Management Program  
3900 Commonwealth Blvd. MS 47  
Tallahassee, Florida 32399-3000  
Phone: (850) 245-2161

**Florida Department of Transportation**

Ms. Stephanie C. Kopelousos  
Secretary of Transportation  
605 Suwannee Street  
Tallahassee, Florida 32399-0450  
Phone: (850) 414-4100

**Florida Natural Areas Inventory**

1018 Thomasville Road  
Tallahassee, Florida 32303  
Phone: (850) 224-8207

**St Johns River Water Management District**

P.O. Box 1429  
Palatka, Florida 32178  
Phone: (386) 329-4500

**Florida Division of Historical Resources** (State Historic Preservation Office)

500 S. Bronough Street  
Tallahassee, Florida 32399-0250  
(850) 245-6333

**Brevard County Fire Rescue Department**

1040 S. Florida Avenue  
Rockledge, FL 32955  
(321) 633-2056

**Brevard County Planning & Development Department**

2725 Judge Fran Jamieson Way, Bldg. A  
Viera, FL 32940  
(321) 633-2070

**Brevard County Natural Resources  
Management Office**

2725 Judge Fran Jamieson Way, Bldg. A  
Viera, FL 32940  
(321) 633-2016

**Brevard County Property Appraiser**

400 South Street, 5th Floor  
Titusville, Florida 32780  
(321) 264-6700

**Brevard County Health Department**

2575 N Courtenay Parkway  
Merritt Island, Florida 32953  
(321) 454-7151

**Brevard County Public Works  
Department**

2725 Judge Fran Jamieson Way, Bldg. A  
Viera, FL 32940  
(321) 617-7202

**Brevard County Economic  
Development Commission**

597 Haverty Court, Suite 40  
Rockledge, Florida 32955  
Phone: (321) 638-2000

**Brevard County Division of Parks and  
Recreation**

2725 Judge Fran Jamieson Way B203  
Viera, Florida 32940  
Phone: (321) 633-2046

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## SECTION 11: LIST OF ENVIRONMENTAL PERMITS REQUIRED

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### 11.1 Regulatory Framework

This PEA has been prepared under the provisions of, and in accordance with the NEPA, the CEQ Regulations Implementing the Procedural Provisions of NEPA, and 38 CFR Part 26. In addition, the PEA has been prepared as prescribed in VA's *NEPA Interim Guidance for Projects* (VA 2010b). Federal, State, and local laws and regulations specifically applicable to this Proposed Action are specified, where appropriate, within this PEA, and include:

- Coastal Zone Management Act (CZMA) of 1990, as amended (16 USC 1451 *et seq.*); Federal agencies must follow the Federal Consistency provisions as delineated in 15 CFR Part 930.
- Migratory Bird Treaty Act (MBTA; 16 USC 703-712, 3 July 1918; as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986, and 1989).
- Endangered Species Act (ESA) of 1973, as amended (7 USC 136; 16 USC 1531 *et seq.*).
- Native American Graves Protection and Repatriation Act, as amended (NAGPRA) (25 USC 3001 *et seq.*).
- National Historic Preservation Act (NHPA) of 1966, as amended (36 CFR Part 800).
- Federal Clean Air Act (CAA) of 1990 (42 USC 7401 *et seq.*, as amended).
- Federal Clean Water Act (Federal Water Pollution Control Act) of 1948, as amended (1972, 1977) (33 USC 1251 *et seq.*); Sections 401 and 404.
- Executive Order 11988, *Floodplain Management* (24 May 1977).
- Executive Order 11990, *Protection of Wetlands* (24 May 1977).
- Executive Order 12898, *Environmental Justice* (11 February 1994).
- Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* (24 January 2007).
- Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* (5 October 2009).
- Servicemembers Civil Relief Act, also known as the Veteran's Benefit Act of 2010, Public Law 111-275, Sec.503. Reports on Selection of New National Cemeteries (38 USC 2400).
- USACE, Section 404 of the Federal Clean Water Act for projects that disturb any jurisdictional "Waters of the United States".

- Florida National Pollutant Discharge Elimination System (NPDES) General Construction Permit for projects that disturb more than one acre of ground (Section 403.0885, Florida Statutes).
- Stormwater management review by the SJRWMD and Environmental Resources Permit (ERP).
- Brevard County Code of Ordinances, Chapter 222 (Environment), Article II (Pollution), Division 2 (Pollution Control Act).
- Brevard County Code of Ordinances, Chapter 46 (Environment), Article V (Stormwater); Chapter 62 (Land Development Regulations), Article X (Environmental Protection and Conservations), Division 3 (Surface Water Protection), Division 6 (Stormwater Management Criteria); and Chapter 253 (Special Areas of Stormwater Concern).
- Brevard County Code of Ordinances, Chapter 62 (Land Development Regulations), Article X (Environmental Protection and Conservations), Division 4 (Wetland Protection Protection).
- Brevard County Code of Ordinances, Chapter 62 (Land Development Regulations), Article X (Environmental Protection and Conservations), Division 2 (Aquifer Protection).
- Brevard County Code of Ordinances, Chapter 62 (LDR), Article X (Environmental Protection and Conservation) and Article XIII (Landscaping, Tree Protection, Land Clearing, and Land Alteration).
- Brevard County Code of Ordinances, Chapter 46 (Environment), Article IV (Noise).
- Brevard County Code of Ordinances, Chapter 62 (LDR), Article X (Environmental Protection and Conservation), Division 5 (Floodplain Protection); and Article XI (Flood Damage Protection).
- Brevard County Code of Ordinances, Chapter 22 (Buildings and Building Regulations), Article V (Coastal Construction Code), and Chapter 62 (LDR), Article XII (Coastal Setback and Control Lines).
- Brevard County Code of Ordinances, Chapter 94 (Solid Waste), Article V (Hazardous Waste Management) and Chapter 222 (Environment), Article II (Pollution), Division 2 (Pollution Control Act)

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## SECTION 12: GLOSSARY

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**100-Year Flood** - A flood event of such magnitude that it occurs, on average, every 100 years; this equates to a one percent chance of its occurring in a given year.

**Aesthetics** - Pertaining to the quality of human perception of natural beauty.

**Ambient** - The environment as it exists around people, plants, and structures.

**Ambient Air Quality Standards** - Those standards established according to the CAA to protect health and welfare (AR 200-1).

**Aquifer** - An underground geological formation containing usable amounts of groundwater which can supply wells and springs.

**Asbestos** - Incombustible, chemical-resistant, fibrous mineral forms of impure magnesium silicate used for fireproofing, electrical insulation, building materials, brake linings, and chemical filters. Asbestos is a carcinogenic substance.

**Attainment Area** - Region that meets the National Ambient Air Quality Standard (NAAQS) for a criteria pollutant under the CAA.

**Bedrock** - The solid rock that underlies all soil, sand, clay, gravel and loose material on the earth's surface.

**Best Management Practices (BMPs)** - Methods, measures, or practices to prevent or reduce the contributions of pollutants to U.S. waters. Best management practices may be imposed in addition to, or in the absence of, effluent limitations, standards, or prohibitions (AR 200-1).

**Commercial land use** - Land use that includes private and public businesses (retail, wholesale, etc.), institutions (schools, churches, etc.), health services (hospitals, clinics, etc.), and military buildings and installations.

**Compaction** - The packing of soil together into a firmer, denser mass, generally caused by the pressure of great weight.

**Contaminants** - Any physical, chemical, biological, or radiological substances that have an adverse effect on air, water, or soil.

**Council on Environmental Quality (CEQ)** - An Executive Office of the President composed of three members appointed by the President, subject to approval by the Senate. Each member shall be exceptionally qualified to analyze and interpret environmental trends, and to appraise programs and activities of the Federal Government. Members are to be conscious of and responsive to the scientific, economic, social, aesthetic, and cultural needs of the Nation; and to formulate and recommend national policies to promote the improvement of the quality of the environment.

**Criteria Pollutants** - The CAA of 1970 required the USEPA to set air quality standards for common and widespread pollutants in order to protect human health and welfare. There are six "criteria pollutants": ozone (O<sub>3</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), and particulate matter.

**Cultural Resources** - The physical evidence of our Nation's heritage. Included are: archaeological sites; historic buildings, structures, and districts; and localities with social significance to the human community.

**Cumulative Impact** - The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

**Decibel (dB)** - A unit of measurement of sound pressure level.

**Direct Impact** - A direct impact is caused by a Proposed Action and occurs at the same time and place.

**Emission** - A release of a pollutant.

**Endangered Species** - Any species which is in danger of extinction throughout all or a significant portion of its range.

**Environmental Assessment (EA)** - An EA is a publication that provides sufficient evidence and analyses to show whether a proposed system will adversely affect the environment or be environmentally controversial.

**Erosion** - The wearing away of the land surface by detachment and movement of soil and rock fragments through the action of moving water and other geological agents.

**Farmland** - Cropland, pastures, meadows, and planted woodland.

**Fauna** - Animal life, especially the animal characteristics of a region, period, or special environment.

**Flora** - Vegetation; plant life characteristic of a region, period, or special environment.

**Floodplain** - The relatively flat area or lowlands adjoining a river, stream, ocean, lake, or other body of water that is susceptible to being inundated by floodwaters.

**FONSI** - Finding of No Significant Impact, a NEPA document.

**Fugitive Dust** - Particles light enough to be suspended in air, but not captured by a filtering system. For this document, this refers to particles put in the air by moving vehicles and air movement over disturbed soils at construction sites.

**Geology** - Science which deals with the physical history of the earth, the rocks of which it is composed, and physical changes in the earth.

**Groundwater** - Water found below the ground surface. Groundwater may be geologic in origin and as pristine as it was when it was entrapped by the surrounding rock or it may be subject to daily or seasonal effects depending on the local

hydrologic cycle. Groundwater may be pumped from wells and used for drinking water, irrigation, and other purposes. It is recharged by precipitation or irrigation water soaking into the ground. Thus, any contaminant in precipitation or irrigation water may be carried into groundwater.

**Hazardous Substance** - Hazardous materials are defined within several laws and regulations to have certain meanings. For this document, a hazardous material is any one of the following:

Any substance designated pursuant to section 311 (b)(2)(A) of the Clean Water Act.

Any element, compound, mixture, solution, or substance designated pursuant to Section 102 of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Any hazardous substance as defined under the Resource Conservation and Recovery Act (RCRA).

Any toxic pollutant listed under TSCA.

Any hazardous air pollutant listed under Section 112 of CAA.

Any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to Subsection 7 of TSCA.

The term does not include: 1) Petroleum, including crude oil or any thereof, which is not otherwise specifically listed or designated as a hazardous substance in a above. 2) Natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). A list of hazardous substances is found in 40 CFR Part 302.4.

**Hazardous Waste** - A solid waste which, when improperly treated, stored, transported, or disposed of, poses a substantial hazard to human health or the environment. Hazardous wastes are identified in 40 CFR Part 261.3 or applicable foreign law, rule, or regulation.

**Hazardous Waste Storage** - As defined in 40 CFR Part 260.10, ". . . the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere".

**Hydric Soil** - A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic (oxygen-lacking) conditions that favor the growth and regeneration of hydrophytic vegetation. A wetland indicator.

**Indirect Impact** - An indirect impact is caused by a Proposed Action that occurs later in time or farther removed in distance, but is still reasonably foreseeable. Indirect impacts may include induced changes in the pattern of land use, population density or growth rate, and related effects on air, water, and other natural and social systems. For example, referring to the possible direct impacts described above, the clearing of trees for new development may have an indirect impact on area wildlife by decreasing available habitat.

**Industrial Land Use** - Land uses of a relatively higher intensity that are generally not compatible with residential development. Examples include light and heavy manufacturing, mining, and chemical refining.

**Isolated Wetland** - Areas that meet the wetland hydrology, vegetation, and hydric soil characteristics, but do not have a direct connection to the Waters of the US.

**Jurisdictional Wetland** - Areas that meet the wetland hydrology, vegetation, and hydric soil characteristics, and have a direct connection to the Waters of the US. These wetlands are regulated by the USACE.

**Listed Species** - Any plant or animal designated as a State or Federal threatened, endangered, special concern, or candidate species.

**Mitigation** - Measures taken to reduce adverse impacts on the environment.

**Mobile Sources** - Vehicles, aircraft, watercraft, construction equipment, and other equipment that use internal combustion engines for energy sources.

**Monitoring** - A process of inspecting and recording the progress of mitigation measures implemented.

**National Ambient Air Quality Standards (NAAQS)** - Nationwide standards set up by the USEPA for widespread air pollutants, as required by Section 109 of the Clean Air Act (CAA). Currently, six pollutants are regulated by primary and secondary NAAQS: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter, and sulfur dioxide (SO<sub>2</sub>).

**National Environmental Policy Act (NEPA)** - U.S. statute that requires all Federal agencies to consider the potential effects of Proposed Actions on the human and natural environment.

**Non-attainment Area** - An area that has been designated by the EPA or the appropriate State air quality agency as exceeding one or more National or State ambient air quality standards.

**Parcel** - A plot of land, usually a division of a larger area.

**Particulates or Particulate Matter** - Fine liquid or solid particles such as dust, smoke, mist, fumes, or smog found in air.

**Physiographic Region** - A portion of the Earth's surface with a basically common topography and common morphology.

**Pollutant** - A substance introduced into the environment that adversely affects the usefulness of a resource.

**Potable Water** - Water which is suitable for drinking.

**Prime Farmland** - A special category of highly productive cropland that is recognized and described by the US Department of Agriculture's Soil Conservation Service and receives special protection under the Surface Mining Law.

**Remediation** - A long-term action that reduces or eliminates a threat to the environment.

**Riparian Areas** - Areas adjacent to rivers and streams that have a high density, diversity, and productivity of plant and animal species relative to nearby uplands.

**River Basin** - The land area drained by a river and its tributaries.

**Sensitive Receptors** - Include, but are not limited to, asthmatics, children, and the elderly, as well as specific facilities, such as long-term

health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, and childcare centers.

**Significant Impact** - According to 40 CFR Part 1508.27, "significance" as used in NEPA requires consideration of both context and intensity.

**Context.** The significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the Proposed Action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

**Intensity.** This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action.

**Small quantity generator** - A generator who generates greater than 220 pounds but less than 2,200 pounds of hazardous waste in a calendar month and who does not accumulate more than 13,200 pounds of hazardous waste at any one time (if either threshold is exceeded, the generator becomes a large quantity generator). A small quantity generator may accumulate hazardous waste up to 180 days from the accumulation start date.

**Soil** - The mixture of altered mineral and organic material at the earth's surface that supports plant life.

**Solid Waste** - Any discarded material that is not excluded by section 261.4(a) or that is not

excluded by variance granted under sections 260.30 and 260.31.

**Threatened species** - Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**Topography** - The relief features or surface configuration of an area.

**Toxic Substance** - A harmful substance which includes elements, compounds, mixtures, and materials of complex composition.

**Waters of the United States** - Include the following: (1) All waters which are currently being used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (2) All interstate waters including interstate wetlands. (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds; the use, degradation or destruction of which could affect interstate or foreign commerce.

**Watershed** - The region draining into a particular stream, river, or entire river system.

**Wetlands** - Areas that are regularly saturated by surface or groundwater and, thus, are characterized by a prevalence of vegetation that is adapted for life in saturated soil conditions. Examples include swamps, bogs, fens, marshes, and estuaries.

**Wildlife Habitat** - Set of living communities in which a wildlife population lives.

